JOURNAL of the
CANADIAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION AND RECREATION

FEATURING FITNESS

"Every man is the builder of a temple, called his body." (*Thoreau*)

Vol. 26 **April-May, 1960** **No. 4**

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1959 - 60

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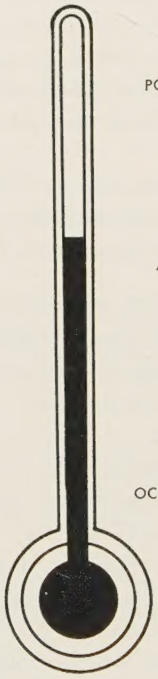
WHAT IS FITNESS?

Fitness includes, among other qualities, endurance, agility, strength, and skill, as well as the will to do. Physical Education cannot be all things to all men, but it must be some things to all men. Physical Education must have as fringe objectives—sportsmanship, character, social adjustment, proficiency in English, good manners, and other personality adjustments for a vocation and an avocation, but the focus should remain fitness.

ELEMENTS AFFECTING YOUR FITNESS THERMOMETER



Wholesome Recreation	Anti-social recreation
Good heredity	Handicapping heredity
Medical and dental care	Lack of medical and dental care
Applied intelligence	Low applied intelligence
Pleasurable emotions	Depressing emotions
Good environment	Unhygienic environment
Good health habits	Poor health habits

(HEALTH—PHYSICAL FITNESS—FITNESS are synonyms)

The human body functions as an entity. All phases—organic power, skills, ability to think, and the emotions are related, as are many elements in heredity and the environment. Heredity and environment may, or may not, affect the fitness outcome, the recreational outcome, or the character outcome. If Physical Education has as its aim TOTAL FITNESS, it must equally stress all "mental, moral, intellectual, and spiritual" life elements.

*An excerpt from the article by Dr. J. B. NASH in the "Physical Educator", December, 1959.

Editorially Speaking

Words or Action?

By DR. MAX HOWELL
Vice President for Physical Education
in collaboration with
W. R. MORFORD
School of Physical Education and Recreation
The University of British Columbia, Vancouver, B.C.

Jay B. Nash, one of the leading thinkers in our field, has probably done as much as any living man to formulate the philosophical basis of our profession. In 1951 he wrote (3):

> Physical education, in terms of outcomes, is the sum of the changes in an individual caused by experiences centered around these total body activities.

Nash lists these outcomes as organic vigor, neuromuscular development, problem solving and finally emotional and social development. This was his professional message in 1951.

It is interesting to read the words of the Nash of December, 1959 (2):

> Every activity of the school and community—Physical Education is one, along with English, science, social studies and so forth, is concerned with all phases of education and life outcomes, but each must have a focus and each must have fringe area objectives. The focus in Physical Education is FITNESS—body ability to sustain adaptive effort.

Nash has perhaps mirrored with these words the change in emphasis within physical education. The fitness movement is upon us, and is obviously here to stay. Canadian physical educators have generally been slow to alarm, and have watched with great interest the developments within the United States. Their calm and conservative analysis of the situation has been a good thing, for they have escaped many of the pit-falls that the United States physical educators have fallen into.

In the United States the principal concern appears to have been one of definition and evaluation. The number of conferences and conventions that have discussed subjects like "what is fitness" and "how to measure fitness" have been so numerous as to appear ludicrous.

Definition is important, to be certain. But though the wording may differ from convention to convention there is little change from the opinions summarized in the Report of the Baruch Committee on Physical Medicine in 1948 (1):

> Physical fitness describes the functional capacity of the individual for a task. It has no real meaning unless the task or job for which fitness is to be judged is specified.

And this learned group stressed the futility of attempting to apply one set of criteria of physical fitness to the varying types of individuals with their multiplicity of activities.

And evaluation is important, to be certain. But again the Baruch Committee emphasized the dangers of oversimplification of the problems of measurement of physical fitness. The physical educator is faced with the views of Cureton and the Illinois Physical Fitness Test, Bookwalter and the Indiana Physical Fitness Test, AAHPER and the AAHPER Physical Fitness Test, Plewes and the Canadian Physical Efficiency Test, Rogers and the Physical Fitness Index, and so on. More and more research has developed in an endeavour to produce **the** test, and one school of opinion argues vociferously against the other.

Yes, definition and evaluation are important. But there is one thing more important, and that is PROGRAMME.

If one agrees with Nash, that the focus of Physical Education is fitness, then we should introduce fitness-type activities into

(Cont'd. on page 5)

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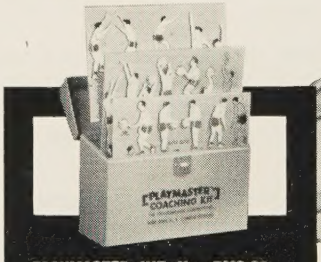

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Un bon placement: Un cours d'été éducation physique

Par GASTON ADAM

Directeur de l'éducation Physique,

Ecoles séparés, Ottawa

L'enseignement de la culture physique prend le vedette au Canada français. Nos universités Laval, Montréal et Ottawa possèdent leur faculté d'Education physique. Plusieurs paroisses sont pourvues de magnifiques centres de loisirs. Nos municipalités ajoutent à leurs services celui de la récréation.

Tout le monde parle d'éducation physique: les papes, le cardinal Léger, et même les prédicateurs de retraites fermées de trente jours. Des publications d'éducation physique tant théoriques que pratiques font leur apparition sur le marché. Mentionnons celle d'un moine: **La Voix du silence**; celle d'un professeur de l'Université d'Ottawa: **L'Education physique dans l'Humanisme intégral**; celles de Caritas-Canada intitulées **Loisirs**; la brochure du gouvernement fédéral: 5 **BX Plan**; les publications du ministère de l'Education de l'Ontario: **Primary Division, Physical Education et Physical Education in Rural Schools**, et puis, la **Gymnastique quotidiene de nos enfants** (cinq à dix ans). Enfin, soulignons la monographie **Physical Educator** publiée par le centre d'orientation de l'O.C.E.

Nos commissions scolaires bilingues ouvrent les yeux sur ce besoin primordial de notre jeunesse. L'une d'elles, celle d'Ottawa, a à son service deux directeurs d'éducation physique; l'un de langue anglaise et l'autre de langue française. Plusieurs autres commissions scolaires annoncent dans le **Droit** un supplément de $300 en salaire au professeur qui assumerait la responsabilité de l'éducation physique à son école.

Dans le domaine scolaire, la loi de l'offre et de la demande commence à jouer en faveur de l'éducateur qui prend à coeur le bien-être physique de ses élèves. Les membres de notre association qui sont suffisamment alertés à de nouvelles conquêtes, iront s'armes dès cet été aux cours du ministère de l'-ducation à Hamilton ou à Guelph afin d'être prêts à assumer leur rôle, lorsque l'occasion l'exigera. Nous voulons croire que vous êtes de ceux-là.

On peut se procurer une formule d'inscription en écrivant au sous-ministre de l'Education, ministère de l'Education, Edifices du Parlement, Toronto.

Le bureau de l'A.E.F.O. serait heureux de connaître le nom de ceux et de celles qui s'inscriront à ces cours d'été.

Words or Action

(Cont'd. from page 3)

the programme if they be not there already. This surely is the fundamental concern of our profession.

However, and this point must be clearly appreciated, **this does not mean a sudden departure from the teaching of sports and recreational skills.** It merely means a change in emphasis perhaps, with the introduction **in sensible amounts** of such activities as circuit training, weight training and "the 5 BX" programme. Recent research indicates very clearly that surprising results may be obtained by relatively little time devoted to fitness training, provided this training is both regular and progressive.

The fitness emphasis in physical education is with us and will remain. Our chief concern should be in discovering the ways this objective may best be realised, always remembering that the proper perspective must at all times be maintained. Let FITNESS be our FOCUS. But let us view with alarm infringements on our other accepted objectives such as the development of sports and recreational skills and social and emotional development.

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FITNESS FOR LIVING
in an Industrialized Society

By DORIS W. PLEWES, Ed.D., F.A.C.S.M.,
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Dept. of National Health and Welfare

Fitness for living, for "everyman" not "superman", is a dynamic concept of "wellness" of human beings in a space age. The current idealistic concept of better than average fitness for an entire population encompasses much more than the "survival fitnesses" of an elite group selected by economic and military expediency. The realization of this ideal requires the enlightened husbandry of human resources on a mammoth scale. Never before has so much attention been focused on the "non-sick", on the development of their full potentialities, so that they may live a productive, creative, and satisfying life.

Living at the top range of one's capabilities, adventuring happily and responsibly, making imaginative use of the opportunities that leisure and prosperity provide, demands a high level of physical efficiency, that "hard core of fitness", with which man must meet his biological needs for power and energy. When sedentary living makes life too easy and robs it of the adventurous experiences that stimulate effort and add zest to living, growth to maturity is apt to be stunted. To-day, something extra must be added to the physical demands of sedentary living if the ruggedness, resilience and resourcefulness a hardy citizenry requires, are to be developed. The goal isn't great muscular power, but rather the ability to meet daily demands on physical energy easily with exuberance and "bounce". Personality, like performance, slips when energy is in short supply and recuperation becomes sluggish.

We must ask ourselves what level of physical efficiency should be attained at each stage of maturing during childhood and youth to ensure the optimum use of the individual's powers, and in so doing give reasonable assurance of a sound basis for desirable adjustment to the demands of maturity whatever they may be. This problem is a supreme challenge to the combined talents of several disciplines. The right answer is important to all mankind.

One has only to look at the Eskimos and other primitive tribes where vigorous physical activity begins in early childhood and continues throughout life, to get some idea of how far from fulfilling nature's design most people now are. As judged by recognized standard physical fitness tests administered by the Arctic Aeromedical Laboratory, the ratio of physical efficiency for the average Eskimo, the well-trained Arctic soldier, and the average airman was in the order of 3.5:2.5:1.0.

It is encouraging to note the increasing number of people,

: who recognize that physical fitness is much more than that neutral middle-point, "freedom from disease", that separates a wide range of disabilities from the "not-so-well-defined" range of fitnesses at the opposite end of the scale

: who interest themselves in reducing the "wear and tear" of everyday living

: who are beginning to appreciate that no one can live in defiance of physical efficiency needs without paying the penalty in lowered vitality, and

: who realize that regular and vigorous activity in keeping with individual capabilities and needs, is man's only

way of meeting that "physiologic need of a primitive kind which can not safely be eliminated from civilization".

Biological age assessed on the basis of hibited attitudes, motor ability, fatigu- ility, and recuperative power has been ggested as a more realistic basis for re- rement than chronological age. Should me such yardstick prove to be a sound one d gain acceptance, it might be equally plicable to employability, rates of pay, igibility for driver's licenses, and so forth. he very close positive relationship of phy- cal efficiency to intellectual accomplish- ent and productive drive has raised the uestion as to whether persons who are le to attain a reasonable level of physical ficiency and fail to do so, are, in fact, ac- ptable recruits for positions of responsi- lity.

Lack of agreement as to what constitutes ysical efficiency for withstanding various pes of stress, and what measurements low valid comparisons to be made among fferent individuals exposed to the same ress, has led to confusion and controversy ther than to cooperative exploration. The ilure to differentiate between research, atus studies, and skill testing; to recognize e need for representative sampling in stablishing standards; and to use scientific ardsticks of proven worth has been un- rtunate.

As the frontiers of scientific insight ex- and, the gap between procedures used in nducting physical activities and facts un- arthed through scientific research is apt increase, unless determined efforts are ade to narrow it. Few scientists have in- rested themselves in the potential capa- ilities of "non-pathologic" humans, largely ecause of the lack of public interest in ch matters, and the necessary support r research in this field. The rapid develop- ent of space medicine is but one proof of w quickly and how effectively their know- dges and skills can be mobilized to solve roblems, once a purposeful challenge pre- nts itself.

Industrial research has contributed signi- antly to the knowledge of "man-machine" lationships which are limited to "on-the- b" situations and seldom take individual physical efficiency into account. Fitness for everyday living goes much further. "Man-daily living" relationships involve a round-the-clock appraisal of human tolerance and energy renewal, both of which take physical efficiency into account. The remarkable thing is that it was the incidence of pyschosomatic problems, premature aging, and cardiovascular disabilities in industrialized societies living in push-button environments that led to the re-discovery of the importance of human effort and energy for every day living.

At this point, we might well follow the example of the Food and Agricultural Organization of the United Nations, and so avoid the wastage of time and effort in a field where professional research is in scant supply. A conference of key research persons drawn from each of the disciplines concerned with physical efficiency could develop an integrated approach to fitness problems and thus facilitate research on all aspects of it.

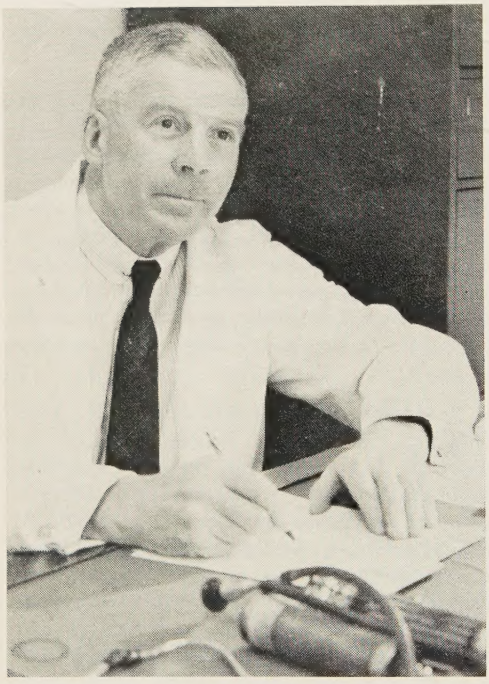
New tools are needed to explore the relationships of man's dynamic ability to mobilize and renew his physical energies, tools that will differentiate between levels of physical efficiency in terms of individual characteristics, environment, vocational and leisure demands. Such an objective yardstick may well be calibrated in a combination of medical, biochemical, physiological, psychological and physical performance terms and can only be developed through the close cooperation of all these disciplines. A precise terminology, a pharmacology of Fitness, is needed to facilitate communication and interpretation. Eventually a science of Fitness might well develop to serve its special needs as pathology serves the needs of sickness.

Life expectancy has increased tremendously in the last fifty years. Fitness for living challenges us to find ways and means of giving a quality dimension to living so that these added years will be constructive and satisfying. To be able to assess one's fitness at any age and to relate the findings to one's potential at the same age, and also to one's probable potential at a later age, would undoubtedly add a new dimension to Fitness, and might well establish a new concept of "Fitness Expectancy".

"Is Physical Education Fighting a Losing Battle?"

An Outsider Looks at Physical Education

By DR. G. E. WILSON, M.D., D.P.H.



There are a lot of questions a medical man would like to ask Physical Educationists. Important first ones would be "Has Physical Education missed the boat?" and, "Is Physical Education fighting a losing battle?" Not long ago an American colleague, commenting on the upsurge in popular interest in Physical Fitness, wrote to me "It is good to see so much public interest expressed but one wonders why professionals in the work were unable to enlist public support." (By 'professionals in the work', I assume he means Physical Educationists.) This sentence was written after many years in the field of Health Education and after several 'Youth Fitness Conferences' as a member of the President's Citizen's Advisory Committee. Is there any relation between 'failure to win public support' and the two questions I am asking? By 'failure to win public support' I mean:

1. Decreasing time allotted to Physical Education in school curricula.
2. Decreasing budgets for Physical Education.
3. Increasing public apathy to physical activity and to participation in sports and games.

Now, what do I mean by 'missing the boat'?

1. Has Physical Education inculcated habits of physical activity and physical perfection in early childhood which have persisted into adult life?
2. Has Physical Education set its sights on long-range planning for adulthood or, in other words, has the aim and object of Physical Education been too transitory and short sighted, so that its benefits do not last beyond the school period and have made no impression on the adult public? Furthermore,
3. Do our youth know the fundamentals of physiology, of training, the reasons for the emphasis on moderation, and
4. Do our youth, in general, realize their full physical capabilities?

And, what about 'fighting a losing battle'? If, after all these years of advanced, enlightened, ever-experimenting, teaching in Physical Education, we are still fighting a rising tide of widespread apathy, inactivity, spectator sports, emphasis on the star performer, physical unfitness in the general population, is it any wonder that Physical Education lacks public support?

This is a bleak picture and I am not a pessimist nor do I feel that this unsatisfactory state of affairs is all the fault of Physical Education. It looks as if Physical Education were the whipping boy just the same. My opinion is only one of the many

medical men and observers who, aside from the few who follow in steps of Tait McKenzie, know very little about Physical Education and the searching that goes on within its own ranks. But here, for what it is worth, is one opinion. There must be considerable room for improvement in the teaching and motivation of Physical Education in the elementary schools. Here children should be taught Physical Education so that physical activity and improvement in physical skills would become at least as important as brushing the teeth three times a day or eating the correct foods. Surely Physical Education of this sort is as important to the education of the child as 'shops' or even music. Physical educationists, perhaps, need the support of the medical profession to impress this upon the public. Even our schools should be sited and landscaped (as I understand is done in some European countries) so that as much time as possible might be spent outdoors in Physical Education periods.

We should be thinking in high school, not only of the Gr. XI and Gr. XII student but also of the university student, the young married adult and the middle aged. Here is the period of fullest physical development and youth's pattern for later life may begin to show itself. Many of us know of the high school athlete who drops all his physical activities on entering university or upon getting married. Physical deterioration inevitably results but, even more lamentable, is the loss of means of relaxation, recreation and release from tension. Many of our high school athletes graduate as ignoramuses in Physical Education—unable to adjust physically to a different life and immeasurably damaged in consequence. Is it any wonder he doesn't care when he doesn't know why he should care or how to care? Is it any wonder that it takes the rigours and discipline of military life (when we're told once again what to do) to bring out the fine potentialities for positive health and physical efficiency in Canadian manhood?

THE ROLE OF MEDICINE

Where does medicine come in on all this? Well, I am afraid that doctors cannot altogether be absolved from some blame. Medicine has not yet fully accepted the importance of physical fitness or physical activity. Yes, we are interested in the prevention of disease but it isn't entirely clear that we can prevent anything by being physically fit. We do feel, though, that, apart from faddists and the self-righteous, people who are reasonably physically active are better physically, mentally more balanced and more sound and possess greater inner resources. And, physical activity means walking and skiing and snow shovelling and grass cutting and skating and playing tennis and volleyball and all the pleasant forms of exercise which are open to all ages and classes—and not necessarily calisthenics. The Canadian Medical Association has been considering the subject of Physical Fitness at their last two or three annual conventions. Those of us who feel that it is an important part of healthful living are asking that the C.M.A. take steps to make their sympathy known and their advice and assistance available to other professional groups working in the field. It is a little difficult to know where the medical profession can be of help but we would like it known that we are interested (like you) in finding answers to the questions I have raised and thus raise the general level of physical activity and physical fitness of Canadians.

ABOUT THE AUTHOR

Dr. G. E. "Duff" Wilson, is the Medical Officer of Health in Kitchener, Ontario. He has long had a personal and professional interest in the problems he has presented here.

As chairman of the committee on public health for the Canadian Medical Association, Dr. Wilson's comments are of special significance to all CAHPER members.

The California Physical Fitness Pentathlon

The California Physical Fitness Pentathlon is a program of physical tests which was devised during the second world war by a committee under the chairmanship of Frederick W. Cozens, Professor of Physical Education, University of California. The program is composed of five groups of activities for which performance standards are provided in accordance with a classification based on age, height and weight. The nature and purpose of the pentathlon together with the test items, classification plan, and scales for scoring performance have been published in the Bulletin of the California State Department of Education, Vol. XI, No. 8, November 1942. The Bulletin may be procured from the California State Department of Education, Sacramento. The following is an extract from the program.

NATURE AND PURPOSES OF THE PENTATHLON

The California Physical Fitness Pentathlon is for use with boys and young men in all secondary schools from junior high school through the junior college. It is designed to measure such elements of physical fitness as power, strength, speed, endurance, flexibility, agility, balance, and coordination.

A program of competitive events through which the factors of physical fitness may be measured serves to motivate the program of training for physical fitness and thereby promotes the objective of physical fitness. Each event of such a program must be a valid and reliable measure of certain important phases of motor ability; the battery of tests as a whole must provide an adequate sampling of these various abilities.

Events meeting these standards were chosen for the Pentathlon on the basis of the following factors: (1) simplicity; (2) ease of administration; (3) equipment available in most schools; (4) already established achievement norms.

Many events for which claims could be established as valid and reliable indexes of the motor phases of physical fitness were studied and considered for inclusion. Although no special claims are set forth for the validity of the battery that was chosen to constitute the Pentathlon, sufficient evidence has been compiled to indicate that its validity can be established.

USE OF PENTATHLON

It is suggested that the tests constituting the Pentathlon be administered once or twice each semester so that both pupil and instructor may be able to note improvement and lay out a course of action accordingly.

In using the tests to motivate a program for developing physical fitness, the following points should be observed:

1. The results of the tests should be used to improve the instructional program, for example, in diagnosing strengths and weaknesses, and in determining progress in the abilities that contribute to physical fitness.
2. The tests should not be used to the exclusion of other activities that are valuable in the physical education program.

EVENTS IN PENTATHLON

The California Physical Fitness Pentathlon consists of five events, one event to be selected from each of five groups.

Group 1.
Events that measure power together with co-ordination, strength, and flexibility of legs and body, plus balance.
Standing broad jump
Standing hop, step, jump

Group 2.
Events that measure strength of arms and shoulder girdle.
Pull-up (chin)
Rope climb (15 feet or 20 feet)
Push-up

Group 3.

Events that measure endurance and speed. Combination of 75-yard run and 150-yard run, for predicting performance in 300-yard run.

150-yard run
220-yard run
300-yard run

Group 4.

Events that measure agility, co-ordination and body control by the arms, plus balance.

Bar snap for distance
Bar vault for height

Group 5.

Frog stand, designed to measure balance, and strength of arms and shoulder girdle.

Sit-up, designed to measure abdominal strength and body flexibility.

Burpee test, designed to measure agility and large muscle co-ordination.

CLASSIFICATION PLAN

For purpose of minimizing the effects of maturity and size on ability to perform, a scientifically devised classification plan is used in conducting the Pentathlon. In this classification plan, the factors of age, height, and weight are combined in the proportions of 2A (age in years) + .475H (height in inches) + .16W (weight in pounds). Exponents are provided for combining factors and the class in which a pupil competes is determined by the sum of these exponents. Boys in junior high school and high school are classified in six classes from A to F. The classification scheme is not intended to apply to junior college men.

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We would like our young people to become participating, purposeful, contributing, happy human beings.

. . . there are the real ends of fitness.

. . . they are the ends worthy of mankind."

(M. D. Hanks)

The values of exponents for various ages, heights, and weights, and the classification according to sums of these exponents are presented in tables.

SCALES FOR SCORING PERFORMANCE

Scales for scoring performances in each of the events of the Pentathlon have been so constructed that a given score on any particular event is equivalent in terms of quality of performance to the same score on all events. Consequently, the scores on five events can be added to give a total score on the pentathlon.

Separate scales for each of the several classes, A to F, are available for the following events: standing broad jump; standing hop, step, and jump; pull-up; 15 foot rope climb; 20 foot rope climb; push-up; 220 yard run; bar snap for distance; bar vault for height.

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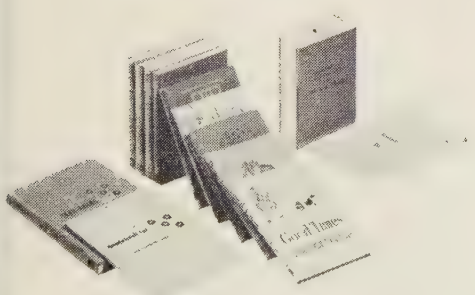

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What Can The Girls' Secondary School Programme In Physical Education Contribute Toward—

PHYSICAL FITNESS FOR GIRLS?

By ELLA B. SEXTON

Inspector of Physical Education, Ontario Department of Education

I should like to begin by asking the reader a question:-

"When is a High School girl physically fit?"

.....

.....

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.....

.....

(This space has been left to give the reader an opportunity to formulate an answer for himself!)

The reader should not feel too discouraged if he has not found a satisfactory answer. Volumes have already been written on tests for physical fitness. The fact that there appears to be little or no correlation between the results of these tests would indicate that they have not been measuring the same thing: that is to say, even the authors do not appear to agree on what they mean by physical fitness.

This is partly understandable when one considers that this 'physical fitness' or 'state' or 'condition', will vary from person to person, from old to young, from man to woman, from boy to girl, and even in the same individual from time to time.

Whatever this ideal 'state' or 'condition' may be, we can surely agree that it would be of little value to the girl if it did not enable her to **do** or to **be** something that is satisfying to her as a person.

The Physical Education programme in a High School **does** provide the opportunity for girls to develop fitness through participation in a wide range of such activities. Born into a society such as ours in Canada with its emphasis on sports, girls seem to have a natural affinity for games. Consequently, 45% to 50% of the programme is devoted to team and individual games and athletics. The balance of the programme consists of fundamentals of movement, various forms of dance, tumbling and apparatus. With the proper motivation and leadership these latter activities are equally satisfying.

By the end of Grade 12 or 13, the average girl who has participated in a balanced programme of activities under good leadership for the 4 or 5 years at High School will have developed a reasonable degree of skill in each.

Each activity makes its own Special requirement of strength, endurance, flexibility, agility, co-ordination and speed — those qualities most frequently listed as being the components of physical fitness. It is only logical to conclude that along with the skill, the girl has acquired the necessary degree of the above qualities.

One of the most important factors is the necessity for participation in a wide variety of activities. Some require strength rather than endurance e.g., vaulting over the pommel horse as opposed to playing a game of basketball. In order that the development of both strength and endurance may be assured, both types of activities are necessary in the programme.

The degree of skill acquired is another important factor. In the early stages of learning an activity, the demands for strength, endurance, etc. are at a minimum. For example, little endurance is required in learning the fundamental skills of badminton; and yet when the players have developed a high degree of skill, badminton requires an enormous amount of endurance.

The phase of the girls' programme that probably contributes most in developing the qualities usually associated with Physical Fitness is Fundamentals of Movement. In this area, while the ultimate aim is Creative Dance, one of the immediate objectives is the preparation of the whole body for this and indeed, many other activities both in the Physical Education programme and in everyday living.

The back and abdominal muscles must be strong because all body movement is initiated and controlled in the torso. Leg and foot muscles must be developed to propel the body upwards in leaping and to counteract the force of gravity in the landing. Joint flexibility is necessary also to increase the range of movement possible: and endurance — that ability to 'keep going' is perhaps the most important of all the objectives sought after in this whole process of preparation of the body. The Physical Fitness developed through the girls' physical education programme can promote mental health as well. I am thinking of a young girl who came to the teacher after a folk dance session recently; eyes sparkling, face glowing, legs pink and tingling from the exercise, breathless; in a spontaneous outburst, she said: "Oh, I've never had such an enjoyable time!"

And so it can be with the whole gamut of activities, under good leadership. In the process of participation the girls experience the "feel" of being fit. Once having experienced this, they will recognize in later life when they are not fit. They will want to do something about this.

"American society must change its values to the end that teaching has a higher priority in the area of competition for human personnel. So long as school boards cannot compete with other employers for the best brains, teaching will be done poorly — and opportunities for intellectual fitness minimized."

(F. E. Engleman)

* * * *

Since the business of living may prevent them sometimes from regaining fitness in the natural manner through games or dance, they should be able to recall from their fundamentals of movement classes in High School, certain exercises that can be performed at home that will achieve comparable results.

To summarize, girls can and do develop the physical fitness necessary for skill in a wide range of activities through participation in the Physical Education programme under trained leadership while at High School.** In the process, they come to recognise the feeling of fitness within their own bodies and to enjoy it for its own sake.

Most parents would feel satisfied with the physical fitness of their daughter if she has developed a reasonable degree of skill and sufficient endurance for participation in every phase of the physical education programme without ill effects. I would be satisfied if I were the parent; wouldn't you?

**At the present time, nearly three fourths of the total number of the women teachers of Physical Education in the Secondary Schools of the province of Ontario are unqualified for teaching physical education.

"Health cannot be given to people— it demands their participation."

(Dr. Rene Sand)

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Good Food — A Basic Requirement For Physical Fitness

By MRS. ANN MATTHEWS BODLEY, M.A., R.P.Dt.
Nutritionist, Department of Public Health, City of Toronto

The Winter Olympics at Squaw Valley were followed with enthusiasm by Canadians. We were proud of our athletes whatever their performance. Yet, did any who admired the exhibition of physical fitness stop to wonder what these young people had eaten before and during the Olympics?

You are well aware that nutritionists emphasize the importance of a balanced food intake. Are you really convinced that good food is basic to health and so to physical performance and that it is important to you? Studies done in the Toronto area have indicated that Grades VI and VIII pupils (1) and industrial employees and teachers (2) do not eat according to human requirements. These facts are important and can be used in teaching the subject of good food to children and youth, especially when it is realized that physical fitness is dependant on these foods.

In thinking of physical fitness, a physical and health education instructor naturally will associate this with athletic ability. But does not physical fitness really mean ability to perform well in any given situation whether it be football, swimming or just plain living. Dr. Genevieve Stearns points out that the adolescent population is the most poorly fed group (3), because in the teenage social structure acceptance by the crowd is the aim. The teenage girl's appetite is satisfied by high calorie "snacks" eaten in company of the crowd. Therefore she is unable to eat the good foods offered at home. However, solely because of a better appetite, the adolescent male is usually able to keep up with the crowd and also to eat what is served at the family table.

Adolescent obesity is also a concern. The same type of eating patterns can be applied—a high intake of snack foods, those that are high in carbohydrate and make little contribution to health. Perhaps if we were to tell teenagers that soft drinks are "essential" and milk is a "treat", acceptance of good nutrition would be a simpler matter.

No one likes to be told what to eat. Certainly this is true of the pre-adolescent and the teenager. They are the group in our population who are expressing the most freedom of choice in food preference, and we should be particularly concerned about them. This group often want guidance, and yet they don't know how to accept it. Therein lies our challenge.

What are the requirements for teaching nutrition effectively? First, a sound knowledge of the subject and interest in it. Second, a conviction that good foods are essential for every day functioning as well as for physical stresses. Third, we require methods of interpretation of the subject that will be appealing. Dr. Arthur Roth suggests the following points in teaching nutrition to young people:

1. Give them credit for knowing something.
2. Let them talk and ask questions.
3. Allow the teenager to accept or verbally reject ideas. Then he will be less likely to reject them by action.
4. Don't fall into the trap "taking sides" in an argument between the generations.
5. Don't force-feed food or ideas to them.
6. Be honest with one's own feelings.
7. Try to teach by example, not by words alone.
8. Nutrition is a long-time thing, not terribly affected by one meal, or even one day's eating habits.
9. Realize there is no perfect food—"best" foods have some drawbacks and "snack" foods can be healthful.
10. Aim for acceptance of one's self in this real world, instead of going along with a dream-wish for "perfect" health, a "perfect" physique, or a "perfect" world. (4)

Could these ideas not apply to any area of nutrition presentation? Good food is good to eat. Nutrition is a fascinating field of science. Let us share our knowledge and so be of service to the citizens of to-morrow.

"Good nutrition—the human fuel of high octane rating—is an essential part of any fitness programme." **(S. MacCarthy)**

The Use Of Weight Resistance Exercise In Fitness Training

By G. A. "BERT" LIFE
Director of Athletics and Health Education
Y.M.H.A., Toronto

Fitness is closely linked with the ability to continue vigorous activity without suffering unduly from fatigue. This implies two factors:

1. The subject has the muscular strength to handle the work with relative comfort; the greater his strength, the more intense the activity he can withstand.
2. The more readily the subject can get over the effects of each effort the greater his ability to continue the activity.

If these two conclusions are true then fitness training involves the building of muscular power to provide strength and the development of respiratory and circulatory efficiency to the point that oxygen and nutrients are delivered to the working muscles at a rate that will provide a constant flow of nutrients as well as removing waste products of energy expenditure. Therefore, it is concluded that fitness training includes strength building and endurance training.

One of the usual criticisms of weight training is that the work does not, as a rule, include sufficient endurance work to stimulate respiratory improvement. It is our contention that this depends on the application of weight training and not on the medium as an exercising tool.

Fundamentally, weight resistance exercise can be one of the most scientific means of training for it provides an opportunity to control both the movement and resistance supplied as well as giving progression as strength and endurance develop. Few methods of exercising can provide these elements to such a degree.

We will not labor the fact that strength can be built with weight resistance exercise. The principle was laid down by Milo of Greece when he carried a calf around an arena each day, his strength increasing to match the increasing weight of the animal until it became a full-grown bull. Modern examples of the application of this progressing resistance training run from power athletes like Parry O'Brien, Doug Hepburn, and George Stulac to specialists in more precision-toned activities like golf champion Frank Stranahan. The essential element seems to be to accommodate the increase of resistance to the growing strength of the exerciser.

Endurance training involves:

1. Inclusion of exercises that challenge the respiro-circulatory functioning, that is, that use the large muscles vigorously.
2. Performance of enough repetitions to induce increased respiration. This involves the limitation of weights used so that the resistance is light enough for the subject to perform an adequate number of repetitions and yet increase his strength.
3. Limiting the allowance of time for rest between exercises.

At the Toronto Y.M.H.A. we have found that the use of circuit training methods fit ideally into this pattern. Circuit training applies the principle of interval training wherein a piece of work is followed by a short rest followed by more work and so on with a time limit set for the completion of all the exercises. Then the whole program is repeated twice more. Our schedule calls for eight vigorous exercises to be completed once every ten minutes, three circuits taking one-half hour. The workouts are graduated from 50 percent fitness workout up to 100 percent, the amount of work being increased as the percentage goes up. We have found that the subject perspires freely after the first ten minutes.

After nearly two years experimenting with this medium we are now using it on competitive athletes with excellent results, although most of those using the programme are doing so just to keep fit. Fat men reduce; slim ones gain; all show noticeable improvement in appearance and in strength and endurance on our fitness tests.

As for the type of exercises we find most demanding in this method, we find repetition clean and press (from the floor to the chest and then to arm's length above the head and back to the floor) and squats (deep knee bends with a weight on the shoulders) give adequate stimulation to the respiro-circulatory functioning.

Fitness is our business and it is good business to use every tool at our command to promote our business. Weight training can be one of these tools.

* * * *

"There is little doubt that stress plays a major role in coronary artery disease both in the immediate and long term phases. . . . . Exercise appears to have value through two mechanisms — that of lowering the blood fats and of producing bypass blood vessels around the obstructions in the coronary arteries."

(Dr. G. D. Talbott)

Physical Fitness is NOT Synonymous with Total Fitness

Physical Fitness — is not synonymous with total fitness; a moron may be as fit physically as a genius, and an illiterate may be as fit physically as a Ph.D. (and he frequently is!).

Among the more important components of physical fitness may be listed the following:

1. Hereditary good quality of vital organs;
2. A lack of pathology in the organism;
3. Good hygienic habits — for which we need to educate; and
4. Physical conditioning and training. This training should be for:
   (a) An adequate amount of strength,
   (b) muscular and circulo-respiratory endurance,
   (c) autonomic control of the circulation and endocrine glands, and
   (d) adequate degree of flexibility.

To achieve these training objectives there must be at least:

1. Use of overload principle for strength and endurance especially. One does not become fit by simply passing resolutions about fitness.
2. Regularity of practice.
3. Adequate facilities and near capacity use of those facilities.
4. The development of performance skills.

(From a speech given at the 1958 O.E.A. Conference by Dr. C. H. McCloy.)

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The English Concept of Basic Movement Training

By Rose Hill
School of Physical and Health Education
University of Toronto

No development in physical education has so stirred the imagination —stimulated more enthusiasm—and aroused such controversy — as "Basic Movement Training"

In this article Miss Rose Hill, who is eminently qualified for the role, carefully describes the origin of the movement and outlines its long range objectives.

Two main influences have affected English physical education since the second war.

1. The development of climbing and scrambling apparatus produced tremendous changes in our approach to gymnastics for young people. During the war it was observed that children at play "borrowed" the apparatus which had been installed in many parts of the country for Commando training. Left to themselves, they not only observed common sense safety precautions, but used the apparatus for evolving activities for their own pleasure without any instruction in specific vaults or drills. In other words, they exercised themselves. From these observations—and this stressing of observation is not coincidental, a freer programme gradually evolved. Physical educationalists experimented with scrambling nets, frames, ropes, poles, etc., using them within lesson periods in a learning situation. The teacher, through observation, encouragement and challenge, was able to guide the children through discovery and practice, towards an increasing ability to adjust themselves to the other members of the class and to the apparatus.

2. The other influences which began among the women physical educationalists during the war was the interest in Modern Dance which was introduced into England by Rudolf Laban. It soon became obvious that the principles of movement underlying this approach to Dance embraced a vocabulary of terms capable of describing all movement, not only in dance, but in industry and drama. There is, unfortunately, no time to describe in detail Mr. Laban's philosophy, but it is important to realize that his concepts on basic movement principles, described below, grew from his observation of ordinary people doing ordinary and extraordinary things. Here is no superimposed systemised calisthenics, valuable though they may have been as body exercise, but a deliberate use for training of the innate movement capabilities of human beings. At first women teachers, then much more slowly, men physical educationalists successfully applied these principles to gymnastics, games skills—even swimming.

The form and presentation of the physical education lesson underwent a radical change. Before, formality, spoken instruction backed up with demonstration and insistence on almost military precision of performance, paid little attention to the important law of learning by trial and error. But in the informal atmosphere which these developments produced, children were freed to work at their own level of ability and there was recognition of the wide developmental range in different individuals. With increased opportunities for individual participation it was possible for each child to proceed at his own rate and improve on his own skill. Now, the aim of the physical education teacher, as in all learning situations is not so much to provide instruction, but to establish the environment, set the atmosphere and give the stimulus which will help the individual to grow and develop naturally.

MATERIAL

The principles underlying Mr. Laban's analysis of all movement give the student, not only the training, but the knowledge of how to handle the body in a variety of situations. It may be in relation to an outside object, a ball, a box horse, within a game, or in the expressive medium in dance. In just the same way the child learns, through the medium of words, an ever increasing vocabulary which can be used in the spoken or written word in a purely functional fashion, or to express an idea or an emotion.

BODY AWARENESS

In all forms of physical activity the body is the instrument used, therefore training in awareness of its capabilities is an essential. It is capable of curling up, stretching, twisting, of getting off the ground—elevation, of locomotion movements—not only on the feet—which leads into an understanding of weight bearing by different body parts. Parts of the body are capable of patterning and gesture in space. This is true of the whole body and of component parts.

QUALITIES OF MOVEMENT

The individual, in movement, brings a quality of effort to a particular situation—

a. **Time quality** — All movement takes time and demands a varying period of time for its performance, e.g. actual time taken in a 100 yard sprint, effective time—the sudden leap to intercept a ball, or a sustained quality—when time has no meaning, the satisfaction of a smooth glide in a good skating action.

b. **Weight quality** — Certain situations demand from the individual a response of strength or lightness in varying degrees (this is roughly equivalent to variations in dynamics). Think of the strength used in batting at baseball when a home run is all important, the lightness demanded in a net shot in badminton. So often the failure to appreciate weight quality in movement results in heaviness. This can be seen in a handstand when the performer gives way to weight, instead of resisting collapse with a strong push against the floor.

c. **Space quality** — The body may make use of space economically, in getting in the most direct way possible from one point to another in space, or it may use up all available space as it moves—contrast the direct use of space in an upward spring to catch a ball and the use made of water space in a sculling action.

d. **Flow quality** — Movement may have a continuing quality, which, once started, carries on of its own volition, a free flow movement, or the movement may be so controlled that it can be stopped at will—a bound flow movement—the smash in tennis makes use of a free flow quality while the arrival at the point of balance in a handstand illustrates well a bound flow quality.

All these qualities interlinked like the strands in wool yarn are part of our everyday movement. Within a training situation the student must not only be made aware of these qualities but also learn the varying degrees she may need to bring to the appropriate situation.

RELATIONSHIPS

Movement is always concerned with relationships, reactions to other people. In this area, training is of paramount importance within all physical education. Movement may have to be limited by the individual in order to fit in with other people; together we are capable of movements we cannot do alone.

SPACE

All movement takes place in space and in order to make the best use of it, students must be made aware of its possibilities and the limitations the lack of it may impose on movement, e.g. a large class working in a small room! One aspect of space is that of levels, high, medium, and low, another is that of directions forward, backward, sideways, right or left, up and down, collapsing and elevation. Also, according to the body shape, the space required will be of a large or small amount, differing body shapes require differing amounts of space.

Movement has a dual purpose—it may be Functional or Expressive.

Functional Movement gets the job done—performs some task—we catch a ball or pick up a book.

Expressive Movement—here movement is used to express a mood or a feeling, children dance for joy, or stamp a foot in anger.

Movement training in these basic principles may be used for functional purposes—as in gymnastics—vaulting or basketball when the principles are used to improve the actual physical skill—or they may be used

(Continued on page 20)

expressively, as in dance or drama. Here demands are made on the whole individual so that movement is employed to illustrate an inner feeling or emotion, an inner concentration.

METHOD

So much for the material at the disposal of the teacher, how is she to make use of these principles as a training medium?

It is important to realize that we are not principally concerned with the end product of a finished performance—our main interest lies in the learning process going on during the practice period. The students are stimulated to learn for themselves that they can respond in many different ways and with use of different qualities. The same stimulus from the teacher is capable of, and should, produce as many varieties of movement as there are students in the class. It is then the teacher's job to observe and assess what the student has given, and to see if she has responded correctly to the stimulus, and has understood and can perform the basic principle.

In terms of planning a lesson the teacher decides to concentrate on a certain movement principle as a theme and then throughout the lesson will aim at providing the stimulus which will give opportunities to the student for that particular movement experience. A form to the lesson is important so that the student warms up gradually through an easy activity, then uses the big muscle groups of the body with especial attention to footwork, then the lessons may continue into gymnastic work on large apparatus—to skill training as in ball handling, or to a game—or it may have dance as its objective and be planned accordingly. Obviously the theme under consideration will be worked at throughout the lesson.

One of the most important tasks of the teacher is that of observation and assessment. This at first does not seem easy, but she must hold fast to watching what the student does and training the students also to observe each other. If she is wanting the students to experience a full bending and stretching—this as a basic movement principle—at the end of the class— did the students really experience this? perhaps half of them did—that principle has not yet been fully learnt—it will be necessary to return to it. Thus continuity is established in movement training.

It is obvious that this concept of movement and its application to the Physical Education programme needs much study and "doing" even to begin to comprehend it. Perhaps all I can do in this brief hour is to stimulate your thoughts and interest.

Traditionally, in Physical Education we have been so conditioned to stereotyped performance, "This is the way to throw, to leap, to swim", that especially with adolescent students, insecurity and lack of faith in their own ability to respond may be experienced in this type of teaching. Of course, this only obtains if they encounter it for the first time during adolescence. Young children have not been so conditioned by previous experiences; ideas and free activity are still their natural birthright.

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The last permissible date of registration is June 27 which is the first day of lectures.

A New Approach to Adult Physical Education

By WILLIAM BABCOCK
Director of Physical Education, Richmond Hill High School, Ontario

This winter at Richmond Hill High School we held Physical Education classes for men. This idea is not new, as many night classes are offered through the Night Schools in our Province, but I do think our approach and presentation were different.

Classes were held twice a week for two hour sessions, and we actually taught the men exercise tables, skills of games, rules of games, and we also spent some time on tumbling and apparatus with the younger men.

The R.C.A.F. 5BX plan for physical fitness was supplied to each registrant and many of them are still exercising at home. As you might expect there were, on closing night, men in each of the first five levels. This indicates the wide range of age and physical types we had present. Dr. Steinhaus' booklet 'How to Keep Fit And Like It' also provided valuable incentive to each individual.

Each evening there was a free play period —basketball, mats and trampoline for 20 minutes, followed by the more or less formal exercise table. As a relief from the 5BX, I would simply ask them to follow me in a rapid, free-lance table of exercise. (Much to everyone's enjoyment.) We then entered the games portion of the evening. Badminton, volleyball, basketball, floor hockey, box lacrosse, and Borden Ball, were introduced to the men. They also enjoyed a 'homand home' series in each of these sports with the Intramural Champions of the High School. This particular feature seemed a valuable experience for both the students of the High School and the men.

The objects, throughout the year were to educate the men in the methods of modern Physical Education, to give them food for thought, help them to better health through exercise and recreation, and to introduce them to new recreational experience.

The course was so successful that its membership increased throughout the year and a similar type of program has been planned for women as well next year.

ABOUT THE AUTHOR

In addition to his teaching and coaching responsibilities, in which he has been unusually successful, Bill Babcock has pioneered in other related activities. His track and field club has compiled an outstanding record, and he has promoted a very popular day-camping programme. This new venture into the adult fitness field is being closely observed by the newly appointed Physical Fitness Committee in Ontario.

* * *

"The advice for keeping fit most frequently given by physicians and laymen alike is plenty of sleep, an adequate but not excessive diet, and regular moderate exercise and recreation. There are people who are healthy with little or no exercise, but the vast majority of us feel better, sleep better and get more fun out of life if we take regular exercise and enjoy some recreational sport."

—Harold S. Diehl, M.D.

* * *

RECREATION COURSE AT U.B.C.

Recreation people will be interested to know that the University of British Columbia will probably offer a course for Recreation under graduates. This course to more or less parallel the course in Physical Education. It is interesting to note that the British Columbia Recreation Branch of our Association had a great deal to do with the setting up of this course in the University, which now looks as though it would be established. The programme which the Branch submitted to the University Officials was looked upon with favour. This would mean that those going to the University of British Columbia to the School of Physical Education or the School of Recreation would end up with an undergraduate degree that would be designated 'Recreation'. This does not take the place of the degree marked 'Physical Education'.

The Contribution of Community Recreation To Physical Fitness

By W. J. HARE, B.P.H.E., R.D.M.R.
Director of Recreation and Parks, Township of Toronto

In order to deal constructively with the contribution that "Community" recreation makes to the physical well-being of the individual, certain definitions must be established. "Community" recreation, for the purposes of this article, includes all aspects of recreation, to be found in the **total** community, whether sponsored by church, school, municipal government, private agencies or commercial enterprises. "Municipal" recreation deals with programmes sponsored by a Municipal recreation department and supported by tax moneys specifically allocated for this purpose.

"Physical fitness" is meant to include more than the mere measure of the muscular well-being of the individual in terms of strength, but rather the broader measure of a person who is physically fit to battle the rigors of the day to survive the onslaught of the pressures faced both mentally and physically in today's complex and demanding society.

Probably to face the problem directly, we should start with an understanding of "recreation" in its broad sense of being those things that a person **chooses** to do in his own leisure time that satisfies **his** need for self expression, adventure, enjoyment and quest for new worlds to explore. These things must, of necessity, be creative and socially acceptable to be of some worthwhile benefit to the individual and or society.

In today's total community, we find many things available to the individual of a recreational nature and a great number of these are offered him through more than one channel. The church, the school, commercial recreation, private agency recreation (YM-YWCA and YM-YWHA), and municipal recreation all contribute to the recreational function.

MUNICIPAL RECREATION

In the past twenty years or so there has been a great upsurge in the field of municipal recreation. Local governments are gradually becoming aware that the provision of adequate recreational programmes is a municipal function as much as the provision of roads, welfare, health and other municipal services. A great deal of money has been and will continue to be spent in the development of recreational programmes and areas in Canada on the municipal level. Without getting involved with the great variety of programmes offered by these departments of municipal government, it would be fair to say that this field of influence is rapidly expanding and can serve a great need by the provision of programmes to meet the demand of leisure-saturated people all over the Dominion. The prime purpose of a municipal recreation department is to co-ordinate and supplement recreational programmes and facilities in any municipality working with and through the other institutions and agencies mentioned in this article in order to provide as full a programme as possible to meet the recreational needs and wants of the residents in the most economical and efficient manner.

Insofar as physical fitness is concerned, they also offer specific programmes that have a definite bearing on this field. For example, some of the programmes offered in this field are: sports leagues, playground and day camp programmes, aquatics programmes, skiing and curling clubs, tennis and golf instruction, ballet, figure skating,

"To attain this goal of human fitness demands the harnessing of all resources to make communities safe and inviting for young girls and boys to do spontaneously the simple, wholsesome, inexpensive activities like hiking, skating, cycling, and to participate in all sports without over-programming and regimentation." (S. MacCarthy)

dancing classes, "keep-fit" programmes for adults, and provision of outdoor and indoor skating facilities.

The above programmes indicate some of those activities of a physical or semi-physical nature in most communities and the degree of provision of these programmes is a variable factor dependent on budget, staff and other considerations. Besides these of course, are an infinite variety of programmes of a cultural, dramatic, musical and informative nature running the gamut of interests for all ages, but here we are primarily concerned with the contribution that recreation may make to physical fitness.

From the preceding points, one can assume that in most communities of Canada, among the various agencies involved in the total "community recreation" picture, there are ample opportunities for all, from the child to the elderly, to take part in programmes that can contribute to their physical fitness level.

We have all assumed that physical fitness is and will be a by-product of physical education and recreational activities and it now appears that not enough emphasis has been placed on physical fitness as an end result of these programmes. If we are to believe the results of physical fitness testing currently being conducted and the results of rejected persons from the armed forces, we must acknowledge the fact that our programmes are not satisfying our physical fitness aims.

The problem seems then to be not one of providing more programmes, but making better use of those in existence, and, perhaps, by taking a careful look at the quality of what we have to offer jointly, we may change our approach to one of using these programmes and opportunities to the greater benefit of all concerned and the gradual betterment of the physical fitness level of our residents. This will require a concerted and co-operative effort by us all in the immediate future.

The New York State Physical Fitness Test

PURPOSE

The New York State Physical Fitness Test is designed to provide schools with a convenient instrument for periodic evaluation of status and progress in physical fitness of boys and girls in grades 4 through 12. It is hoped that this test, when used as a part of the total school evaluation program, will be helpful in planning educational programs based on pupil needs and will be of value in measuring the outcomes of such programs. Although the chief value of the test may be supervisory — to evaluate the general effectiveness of the instructional program — the test can also serve important instructional and guidance functions. If the results are interpreted with caution, general estimates of status and progress in physical fitness can be obtained for individual pupils. The results can be used as a motivating device for the pupil, as a diagnostic aid for the teacher and as a source of objective information for the parent.

GENERAL FEATURES

The Physical Fitness Test is an individual performance-type test composed of seven different test items. In addition to a total physical fitness score, the test provides seven part scores indicating relative strengths and weaknesses in seven basic components of physical fitness. The test has purposely been designed so that six of the seven test items can be administered to pupils in squad groups or to half the class at one time with pupils alternating as performers and scorers. Separate norms in the form of achievement levels are provided for both the total physical fitness score and the component scores for boys and for girls in each of grades 4 through 12. The norms are based on the performance of pupils at the beginning of the school year — October — and the test should be used by schools at that time.

The seven components measured to obtain a total physical fitness score are: posture, accuracy, strength, agility, speed, balance and endurance. A brief description of the test items used to measure each component is given below.

Posture: Posture is evaluated by means of a Posture Rating Chart. The pupil is compared with figure drawings illustrating posture for 13 different body segments. Each body segment is scored as 5, 3, or 1 making a possible range of scores from 13 to 65.

Accuracy: The Target Throw is used to measure accuracy. The pupil makes 20 throws with a softball at a circular target and is scored on the number of hits in the 20 throws.

Strength: Pull-ups (chinning for boys and Modified pull-ups for girls are used to measure strength in the seventh grade and above. Modified push-ups against a bench are used in grades 4 through 6 for both boys and girls. The score is the number of pull-ups or push-ups completed.

Agility: The Sidestep is used to measure agility. Starting from a center line, the pupil sidesteps alternately left and right between two lines eight feet apart. He is scored on the number of lines crossed in 10 seconds.

Speed: The 50-yard Dash is used to measure speed. The score is the amount of time to the nearest half second.

Balance: The Squat Stand is used to measure balance. The pupil squats with elbows against the inner knee surfaces and leans forward until the feet are raised just off the floor. He is scored on the number of seconds he hold his balance.

(Continued on page 27)

* * * *

This article has been taken from the Manual for Physical Education Teachers published by the New York State Education Department. The manual which includes details of test items, administrative procedures, and norms, together with recording materials may be procured from The University of the State of New York, The State Education Department, Division of Health, Physical Education and Recreation, Bureau of Physical Education, Albany, New York.

ERNESTINE (RUSSELL) CARTER

Windsor, Ontario

This lovely, young lady has compiled a remarkable record in national and international gymnastics competitions. Included among her many achievements are the following honours:

—seven times Canadian all-round gymnastics champion.

—three times all-round gymnastics champion of the United States.

—chosen Canada's outstanding woman athlete three different years.

—represented Canada in the 1956 Olympic Games.

—In 1959 all-round gymnastics champion at the Pan-American Games, capturing four gold and one silver medals.

Ernestine will graduate in the near future as a teacher of Physical Education. While she was married quite recently she plans to continue her gymnastics career and hopes to represent Canada at the Olympic Games in Rome.

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Some Larger Aspects of Fitness
— Their Relationship to Recreation

The following opinions were expressed at the 41st National Recreation Congress at Chicago in September 1959.

Mr. S. G. (Budd) Webb, Area Supervisor of Recreation, Chicago Park District, was the discussion chairman and had this to say:

"Declarations by the President and his advisory councils of fitness, by the hundreds of local, state, and regional conferences, and the millions of written and oral words, have not and will not motivate youth or adults in the United States to change their habits or way of life and consciously seek physical fitness.

It is clear to all of us that organized physical education, sports, and recreation programs have always been the standard-bearers of fitness and must continue to be the basic motivators and instruments of mass fitness.

The principal way in which the cause of fitness can be improved is through expansion of improvements in our local programs. Agencies concerned with youth welfare need to extend their efforts to reach greater participation and more positive results. Our principal challenge is to do the job we have always been doing, but to do it better, more efficiently, more intelligently, more effectively."

Mr. Kenneth Fowell, Director of Recreation, Great Falls, Montana, expressed an interesting point of view with regard to motivation and program equipment.

"Mr. Fowell felt we are often prone to assume that youth must be led or even be driven to make the effort necessary to achieve fitness. However, normal youth (the vast majority) require as motivation only the opportunity to realize their potential. Within the limits dictated by differences in age, skill, general physical make-up and the like, most of our youth will take advantage of opportunities to develop fitness. He doubted that it is true that any large percentage of our youth actually prefer hours before the 'one-eyed monster' (TV) to constructive and creative activity.

The part that the recreation department, parents, schools, and many other groups should play in the process is basically one of provision of ample opportunity for desirable development. In the field of providing opportunity for fitness through physical facilities, it is just as easy to install equipment that requires a positive response as it is to install that which requires a purely negative or passive response. Why not as a general practice put on our playgrounds only things that require climbing, stretching, hanging, shooting a basket, striking something, running, and other forms of positive response instead of using that type of apparatus where the participation consists of sitting down and taking a ride of some kind with little or no effort on the part of the participant?"

NEW YORK STATE FITNESS TESTS

(Continued from page 24)

Endurance: The Treadmill is used to measure endurance. The subject starts from a modified front leaning rest position, one knee flexed and the other extended. He then performs by exchanging the positions of his feet. The score is the number of leg changes in a given time.

Certain of the test items measure something in addition to the components they represent. For example, the pull-ups, a measure of strength, also reflect some endurance because it involves a repeated action. The squat stand requires balance, its major component, but obviously strength and endurance are also needed to sustain the weight of the body on the arms.

The fact that a test is not a pure measure of a component does not impair the value of the test. The primary emphasis in this test is upon total physical fitness, rather than upon separate components of fitness. The sum total of the component scores should provide an adequate basis for determining general physical fitness.

The "V" (for Varsity) Programme for Undergraduates

Physical Conditioning Through Weight Training

By A. J. HIGGINS, B.P.H.E. and T. A. WENSLEY, B.P.H.E.

"Every man is the builder of a temple, called his body". This was stated by Thoreau quite some time ago, but, is still true today, and should be given a good deal of thought. It is the responsibility of the Physical Educator to make people aware of this, and to aid them in directing their efforts towards the building of a strong and healthy body, the temple, that houses a strong and healthy mind. Physical fitness is of paramount importance to everyone, and yet many do not realize this fact.

When people are made familiar with this idea, and accept it, they need a means of achieving their goal. Weights and weight training are becoming an ever increasingly popular means of doing this. More and more schools are acquiring weights for use in the required programme and for extra-curricular use by interested students (and from reports received, these will be many). At the University of Toronto the interest in weight training shown by the students, and the realization of its value by the staff, have resulted in a three-fold increase in the facilities in the past year.

Since the only instructional material available was of a "body beautiful" nature and stressed large, bulky muscles as well as four or five workouts a week that involved considerable expenditure of time, it was thought wise to offer the students something that would be of value to a man interested in the use of weights for the purpose of increasing strength and endurance, and general health. With this thought in mind, the "V" (for Varsity) Programme was conceived and produced by the Men's Department of Physical Education at the University of Toronto under the supervision of Professor Griffiths.

What then, is the "V" (for Varsity) Programme? It is a set of notes, eight pages in length, that deals generally with health and fitness (exercise, diet, and rest), and more specifically with an illustrated, three workouts a week, weight training programme. It is primarily intended for undergraduates in the Service Programme in the Department of Physical Education.

The Programme is introduced by a page of notes explaining the concepts of physical conditioning, and the fact that it is an integral part of overall physical and mental health. It is pointed out that "the secret of promoting and maintaining physical and mental health is mostly common sense"; the former depending upon a balanced diet, adequate sleep, and regular exercise, while the latter involves the avoidance of worry and the possession of a few healthy interests or hobbies.

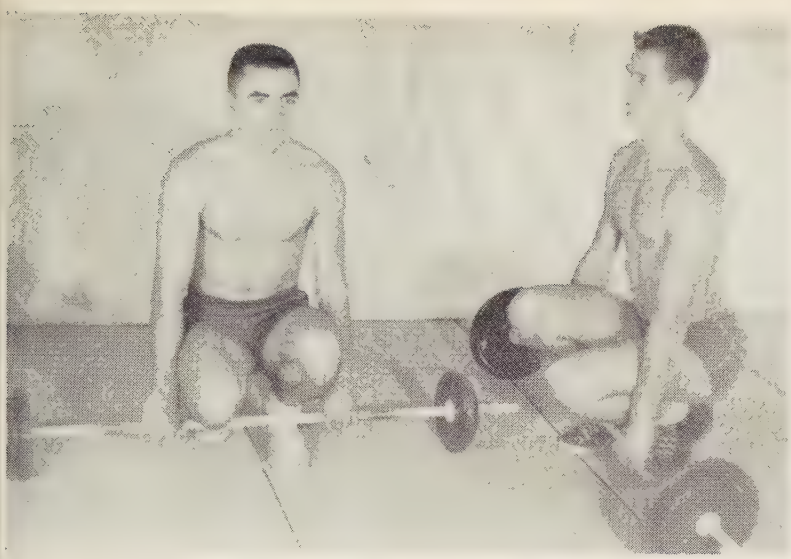
There is also a page of fifteen basic conditioning exercises that can be of value in themselves in maintaining physical conditioning at an attained level; or, may be used as a warm-up for weight training (for it is imperative that one be properly warmed up before using weights).

THE STUDENTS WRITE

This article by Mr. A. J. Higgins and Mr. T. A. Wensley is the first of a new series to be published in The Journal entitled, "The Students Write". These two gentlemen are members of the graduating class of the School of Physical and Health Education at the University of Toronto. The editorial committee feels that the inclusion of this section is a fine idea, but we need articles written by our student members. Articles should be a maximum of 1000 words in length. So, come on students; this is your opportunity to have a voice in your profession.

* * *

Editor's Note: The picture of Mr. George Stulac on the cover was originally used in connection with this programme.



Weight Training Can Be An Integral Part of Any Conditioning Programme

The last page of the booklet is devoted to a few helpful notes on diet, and the relationship of rest to physical activity. The five basic inclusions in a healthful diet, carbohydrates, fats, proteins, minerals and vitamins are mentioned. Examples, and suggested number of daily servings, of various foods are listed. It must be stressed that an adequate diet is a prerequisite to proper conditioning—without which no amount of exercise will produce the desired maximum results.

The actual weight training programme is preceded by a few precautions that should be taken by all participants. It is stressed that the weight trainer be properly warmed up prior to using the weights. It is also pointed out that a man should start with weights that are not too heavy for his present level of strength and fitness, i.e. a weight that allows him to do ten repetitions of the exercise. The fact that the resistance (weight) must be increased as time goes on is emphasized, and it is recommended that when weight has been increased to the point where it is difficult to add more, the exercise should be done in sets; that is, do ten repetitions of the exercise, take a short rest and do ten more repetitions. It should be noted here that a level of fitness may be maintained by merely maintaining the weight and repetitions used at that level. After a reasonable degree of fitness has been obtained, increasing the weight and repetitions only increases strength and endurance.

The first illustration in the notes is the proper method of picking up a heavy weight so that the powerful muscles of the legs do the work, not the weaker muscles of the back. This is important not only to weight trainers, but to those people in later life who at one time or another will be in the situation where they are forced to pick up a weight greater than they are used to, which, if not done in the proper manner, may result in a serious back injury.

This is followed by illustrated exercises for the abdominals, each one progressively more difficult.

The rest of the programme (11 illustrated exercises) is designed to cover all the parts of the body, although the emphasis will be found on the upper body, for, it is felt, that the legs receive a considerable amount of exercise in the normal activities of young Canadians. For this reason a weight training programme is ideal for a school that does not have a gymnastic programme and can't afford one. Aside from this, weights can be used in conjunction with gymnastics for those students who are just too weak and too small to work on the heavy apparatus.

Weight training can also be of great value in increasing the strength and endurance of athletes competing in interscholastic sports. This is extremely important to note, for at the High School age most youngsters are still growing quite

(Continued on page 30)

(Continued from page 29)

rapidly and will derive maximum benefit from the programme, as can be seen in athletes, such as Jim Brewer (the first High Schooler to pole vault fifteen feet) and Dallas Long (one of the best shot putters in the world) who both came from the same high school in Phoenix, Arizona, where the coach stresses weight training for all his athletes.

We should remember that over two thousand years ago the Greeks realized the importance of a body that was physically fit. Today we must accept this same realization, for we are faced with a situation of an increasingly less physically active population, with a decreasing level of fitness as a result. Healthy bodies are no longer produced in the everyday activities of the majority of the people, and it is the responsibility of the Physical Educator to see that these people are given an opportunity to achieve this desired state. For, as Rousseau said over two hundred years ago: "The body must needs be vigorous in order to obey the soul; a good servant ought to be robust—the weaker the body, the more it commands; the stronger it is the better it obeys".

(The complete "V" for Varsity program may be procured from Mr. C. R. Blackstock, General Secretary, C.A.H.P.E.R., 95 Wellesley Street East, Toronto 5, Ontario. Price—25c).

* * *

"A well trained and developed body is not only aesthetically attractive but also carries with it numerous advantages that cannot be overlooked. The trained body performs the same amount of work more cheaply and is less tired than the untrained body. Moreover, it has a greater margin of safety when it has to meet any physical strain which the daily round may unexpectedly bring. **By doing more in fun, we make safe what must be done in earnest.**"

—E. Hohwu Christensen

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FITNESS PROGRAMME PLANNED FOR ONTARIO

The appointment of a seven-member Physical Fitness study committee was announced recently by Health Minister Dymond.

The members of the committee will be Mr. Harry Price, President of the Canadian National Exhibition, who will act as chairman; Michael S. Dunn, who will serve as secretary, and the other members are: Dr. J. Harry Ebbs, Professor W. J. L'Heureux, Mr. D. L. McGregor, Professor Zerada Slack, and Mr. James Worrall.

For many years, Dr. Dymond said, Mr. Harry Price has had a keen personal interest in athletics and fitness. He has been actively associated with the Canadian Olympic Training plan and was one of the founders of the Ontario Athletic Commission.

Brigadier "Mike" Dunn, who has recently retired after a distinguished career with the Canadian Army, was formerly the head of the physical education department at Cornwall Collegiate.

Dr. Harry Ebbs is consultant and senior staff physician of the Hospital for Sick Children—as well as associate professor of pediatrics at the University of Toronto. Dr. Ebbs is also the director of the school of Physical and Health Education, University of Toronto.

Professor "Bill" L'Heureux is head of department of Physical, Health and Recreation at the University of Western Ontario. Mr. L'Heureux is also treasurer of C.A.H.P.E.R. and has been a frequent contributor to the Journal.

Professor Zerada Slack is head of the Women's Physical Education Department at the University of Toronto. Miss Slack's fine article on "Archery is for everyone" appeared in a recent issue of the Journal.

Mr. Don McGregor is director of Physical Education at central Y.M.C.A. in Toronto. In that capacity he has pioneered many fitness projects and should make an important contribution to the work of the committee.

Mr. James Worrall is a well-known Toronto barrister who is a former president of the Amateur Athletic Union of Canada. Mr. Worrall has been appointed general manager of the 1960 Canadian Olympic team which will compete in Rome late this summer.

While Dr. Dymond has not yet announced the committee's terms of reference, frequent meetings have already been held, and it is expected that a plan of action will be announced in the near future.

It has already been indicated that Ontario's fitness committee plans to work very closely with existing organizations; and that the Canadian Association for Health, Physical Education, and Recreation will be expected to provide a good deal of assistance.

Let us hope that the establishment of this provincial committee is merely the first of others to follow—and that action at a national level will be not long in coming.

* * *

FITNESS DEBATED IN PARLIAMENT

In replying to the speech from the Throne in the Ontario Legislature, Mr. Bernard Newman, M.P.P. for Windsor-Walkerville — and longtime coach of Mrs. Ernestine (Russell) Carter — strongly attacked the lack of government action on physical fitness.

"One of the most fundamental of physiological laws is that the functional efficiency of an organ or system improves with use and regresses with disuse. Everyone is familiar with the increased power and efficiency of the skeletal muscles whose activity is prevented by paralysis. From the standpoint of general health, great muscular power is of minor importance. Of greater significance is the fact that the usual types of activity can be carried out with a lesser degree of fatigue and hence with greater enjoyment."

—Lawrence E. Moorehouse
—August T. Miller

AN EXCITING FOUR WEEKS AT —

The "Sporthochschule Köln-Müngersdorf"

Cologne, Germany

By ELSA PUTNIN
Director of Physical and Health Education
Y.W.C.A., Hamilton, Ontario

After many years of intensive teachings at the Hamilton Y.W.C.A., I was seriously concerned about the importance and value of a refresher course in the Physical Education field. Thus, at the end of May, 1959, I took off for a very exciting, interesting, and inspiring three month trip.

My first port of call was Cologne, Germany, where I stayed for four weeks at the "Sporthochschule—Köln-Müngersdorf".

The Sporthochschule Köln-Müngersdorf is one of the best known schools in Germany. Professor Carl Diem and his wife Frau Liselott Diem, two internationally known personalities in the Physical and Health Education field and authors of numerous books, are heads of the school. Professor Diem, whose 72nd birthday we celebrated last summer, and his attractive wife, Frau Liselott, are the most charming personalities I have met, always very active and if not on the playgrounds or in the gymnasia at the school, they are on lecture tours which take them all over Germany and Europe.

The "Sporthochschule" is located in the midst of a huge park in Köln-Müngersdorf, half an hour by streetcar or bus from the centre of Cologne. The streetcar takes you to the wide gates of the main entrance, where you get a fascinating view of the enormous playgrounds on both sides of a well paved road leading to the long two storey buildings in the background.

Here in six bright and roomy gymnasia, numerous auditoria and classrooms, work goes on from 7:30 in the morning until late at night. Kept just as busy are the playgrounds, arenas and tennis courts surrounding the school.

As well as German students, others from all over the world attend courses or classes for longer or shorter periods of time. I met students from South America (Chile, Brazil, Peru, Uruguay), Cuba, Egypt, Israel, Italy, Hungary, Sweden, Finland, England, South and Middle Africa. Even two girls from behind the "Iron Curtain" were there for a short time.

These students are mostly graduates of their own Physical Education Institutes and were here on scholarships for one or two terms. Some attend for a short period, like myself, on a study refresher course to learn more about different schools in Europe and to get a broad view of new developments and new methods in teaching.

The activities in which I was most interested were gymnastics, with and without apparatus, rhythmical gymnastics, folk dancing and modern dance techniques for women and girls.

My busy week started at 8 o'clock on Monday morning and continued until Saturday noon, some days until 9 o'clock at night. The time was filled with an exciting variety of different activities, in different grades and with different teachers. Balls, ropes, wands or sticks and balance beams were used a great deal, plus something new, a 20 foot long elastic rope that could be stretched to a maximum length of 30 feet. Special emphasis was given to body building and corrective exercises and the importance of these exercises for developing good posture and a strong body was stressed at all times.

It was a pleasure to watch Frau Diem working with girls of Terms I and II using rubber balls and skipping ropes, developing elasticity and smoothness in all the exercises in walking, running, jumping and throwing. In using small apparatus she strongly emphasized the proper "feeling" of stretching, bending and twisting to strengthen trunk and feet and to ensure and increase balance, flexibility and elasticity.

Rhythmical Gymnastics was one of the main subjects in the programme for all grades, and was directed by three different teachers. This gave me an opportunity to see a given theme handled three different

ways. In a refined co-ordination between tension and relaxation; by the economical application of energy in walking, running and jumping; and through the awareness of space and rhythm.

In "The Art of Modern Dance" class, group movements and improvisations were stressed: (a) in moving after a given rhythm played on the piano, and (b) improvised group movement, where the music has to follow the movement; these classes were extremely well done and most inspiring. The pianist was incomparably good. I enjoyed these classes immensely.

The Folk Dances included many European Dances and some were very complicated; at these classes I mainly watched and took notes.

In addition to all the activities that I had looked forward to, I had the opportunity to attend a special class of Corrective Foot Gymnastics directed by Frau Diem and her assistants. It was a most interesting class with bending, stretching and twisting exercises to correct and strengthen toes, ankles and feet and to increase flexibility and elasticity.

All this is only a very small part of what goes on at the "Sporthochschule". I don't suppose there is any sport that can't be learned in the school, and the teaching staff is excellent. Playgrounds and arenas are filled with people in training for all kinds of sports and games such as football, soccer, hockey, rugby, volleyball, basketball, badminton, field and track and many more. In the gymnasia, boxing, wrestling, weight lifting, fencing, judo, apparatus work including trampoline jumping are taught and also special subjects such as sports massage, corrective exercises for underdeveloped and partly crippled children, to mention just a few. Many many more activities are part of the very large programme of the school.

One of the most popular sports is swimming. You have to see the swimming facilities in use by the school and general public to understand its popularity. The enormous swimming pools and surrounding grounds cover an area of many acres. There are special pools for diving, pools for swimmers only, and five pools of different depths for beginners, adults and children. All these pools are built into a "T" formation with the diving pool and its three, five and ten meter boards at the foot of the "T", followed by the pools for swimmers. The five beginners' pools are located at the upper line of the "T" and on each end is a huge pool for tiny tots with sliding towers into the water. The whole area, including the pools, belongs to the city of Cologne, and is used by the universities, schools and general public. Classes in all grades in swimming take place throughout the day. Anyone can have a swim at any time. There is no time limit and room enough for all who want to swim at any time. The Director told me that on a hot summer day between 9 o'clock in the morning and 7 o'clock at night, they have had over 36,000 people using the pools and that was not counting those who climbed over the fences and did not pay to enter. Normally between 18,000 and 20,000 people use the pools daily. These swimming pools are really "out of this world".

The "Sporthochschule-Köln-Müngersdorf" is an ideal place for men and women who want to do post-graduate work for a longer or shorter time. In Frau Diem's opinion, a

(Continued on page 35)

DR. T. K. CURETON, JR.

A Report on an Inspiring Workshop Conducted by a Distinguished Authority on Fitness

By PROFESSOR R. F. OSBORNE

Director, School of Physical Education, University of British Columbia

During the last week of February, Dr. T. K. Cureton, Jr., Professor of Physical Education and Director of the Physical Fitness Research Laboratory of the College of Physical Education at the University of Illinois, delivered a number of public lectures and conducted a clinic at the Vancouver Y.M.C.A. which provoked a great deal of interest in and discussion about physical fitness. Dr. Cureton, the author of several books and dozens of scientific contributions relating to various aspects of fitness, so impressed his audiences with his advocacy of systematic exercise as a means of ensuring good health that there were many enquiries regarding the methods employed. As usual, the most common request was for a short formula or prescription which could be taken in easy doses.

The student of physical education can find documented evidence concerning Dr. Cureton's conclusions and methods in his numerous publications but some basic principles which he stressed are stated hereunder:

1. Physical fitness results only from a planned programme on a personal basis, not from casual participation in sports or physical activity.

2. Endurance is essential to people of all ages and can be developed and maintained through a physical fitness programme.

3. The most important aspect of fitness is concerned with good circulation of the blood and a capable heart.

4. Exercise can produce important and significant cardio-vascular improvements, provided planned programmes are employed after consideration of data resulting from a medical examination.

5. Deficiencies revealed by laboratory tests apply equally to men and to women, to boys and to girls.

6. The human body is capable of being trained to a much greater degree of efficiency than has been realized heretofore.

7. Total fitness is extremely complex.

The methods of achieving physical fitness are many and varied but they are characterized by the following factors:

1. Continuous rhythmical exercises carried on for at least thirty minutes, three times a week.

2. Breathing rhythmically with deep, slow breaths and forced exhalation.

3. Repetitious type of interval training, involving planned progression.

4. Relaxation, especially during jogging and recuperative types of exercise.

5. Complete recuperation between training sessions.

From the point of view of their contribution to circulatory fitness, activities such as running, hiking, swimming, and cycling are most valuable. Brisk walking is a fairly acceptable substitute, particularly if occasional jogging is interspersed. The same principles may be employed for women as for men as long as the intensity and quantity of the exercises are varied to suit the age

and condition of the individual. A warm-up of fifteen to twenty minutes, at approximately 60% to 80% of effort, should always precede intensive exercise. At the conclusion of the heavy or very vigorous part of the programme there should be a gradual easing off or a "warming-down" period during which the exercises and action will diminish in intensity until normal breathing is restored. For all groups the importance of stretching is stressed. Fitness of the abdominal area is particularly important for the adult group. Simple balance and strength exercises should be included in general programmes but specific training must be employed when specific results are desired. The preparation of an athlete calls for a carefully planned programme with increasing work loads. Dr. Cureton's research has proved conclusively that superior athletes are those who have developed outstanding capacities in various aspects of strength and endurance, and that even their performances respond to progressive pressurizing, particularly when nutritional supplements are employed.

Since Dr. Cureton's primary reason for visiting Vancouver was to conduct a clinic or personal fitness assessment for business men at the Y.M.C.A., it was natural that he should stress the relationship of physical fitness to disabilities which are commonly the concern of the sedentary executive or professional personnel. High on the list are heart ailments and nervous or tension disorders. Both of these conditions may be avoided or alleviated by systematic exercise, provided the individual is not defective organically.

The significance of the research in physical fitness is twofold. Firstly, there are the implications for the student's total physical education, experience of which the school programme can only be considered a part or phase because of the inadequacy of time, even if we do not consider the problem of trained personnel. Secondly, there are the implications regarding the personal health and fitness of the adult population, including, not least of all, the teaching profession. The number of teachers incapacitated temporarily, or even permanently, by coronary attacks, nervous breakdowns, or extreme fatigue, should cause school boards and health authorities to give special consideration to the need for improving the health status of the teaching profession. Of course, a similar situation is apparent in the business and professional world generally.

Without a doubt, school physical education programmes should place a greater emphasis on vigorous exercise for there is no short-cut to physical fitness. Yet we must not overlook the fact that during the early years of childhood, physical activity is the chief vehicle for social growth and development and is of inestimable value in the establishment of adequate human relationships. The recreative or play element cannot be minimized either for the youngster or the adult. Johann Guts Muths, a 19th Century pioneer of physical education, has said: "Physical Education is labour in the garb of joy." Teachers of physical education must recognize both the labour and the joy. Since the time allotment to physical education is not likely to be increased in the near future to permit adequate realization of both the physical fitness and support skills or recreative aspects, it is of vital importance that a proper concept of health through fitness be developed in the school system.

* * *

AN EXCITING FOUR WEEKS

(Continued from page 33)

student would need for a six month's course about $100.00 a month, plus an additional $100.00 for some special personal expenses, a total of $700.00 for six months. Any information would be gladly given through Professor Carl Diem and Frau Liselott Diem, "Sporthochschule, Köln-Müngersdorf", Stadion, Cologne, Germany.

Lectures and classes are conducted in German, but most of the teaching staff speak English and are extremely helpful, friendly and polite. The same can be said of all the students. A warm atmosphere dominates the whole school, with a sense of belonging to a great task, the task of building strong and healthy bodies.

CAN WE REALLY TEST FOR FITNESS?

By JOHN R. LIFE
Assistant Professor of Physical and Health Education
Ontario College of Education

The recent announcement by the Provincial Government of Ontario regarding the establishment of a "Physical Fitness Program" has once again brought the subject of fitness into the focus of public attention. All of our Toronto newspapers have discussed the subject pro and con both in news stories and editorials. Physical status has become a conversation piece for the general public. Professional Physical Educators are being asked questions—questions like, "How do I know whether or not I am fit?" Or, more especially, "How can we measure the fitness level of the children of our community?"

For many of our colleagues questions such as these are rather embarrassing. Most of us have considerable difficulty justifying our answers. We are far from certain that we can objectively evaluate the fitness level of an individual. We do not really have valid and realiable tests that will truly measure overall physical status. In fact, we are not at all certain that we know what physical fitness is or what standard of physical efficiency a human being should possess. But probably the most disturbing question in the minds of those who have thought the problem through is whether or not we should attempt to evaluate physical fitness status at all. Should we spend time measuring fitness or should we get on with program designed to influence positively the physical capabilities of the people we are hired to help?

Let us consider for a moment the problem of evaluation. We have ways of measuring such factors as strength, power, flexibility, cardio-vascular endurance, reaction time, etc. We can test recovery rate following fatigue. We can determine proficiency in certain skills and we can even evaluate motor quotient as a means of anticipating potential for learning motor skills. But can we put these various factors together in some semblance of order which will give us a true picture of the physical fitness level of each individual under our care? And, if we can do so, can we justify the amount of time we will consume conducting our evaluation — time which might much better be spent attaining fitness rather than measuring it?

Let us just consider one factor—strength. Using dynamometers (and in some instances weights) we can measure grip strength, upper arm strength, lower back strength, in fact the strength of all large muscle groups of the body. But, carrying out these tests is time consuming. To get accurate and authoritative results we must test each individual as an individual, and we should test all the main muscle groups. Strength is one of the many factors we must consider when we speak of evaluating physical fitness. To do an adequate job of measurement would require an expenditure of time far out of proportion to the values to be accrued.

Some short cuts to testing fitness have been devised in the form of abbreviated test batteries which can be conducted, at least partially, on a mass testing basis. The validity of such devices is doubtful. Our experience with the Krause-Weber tests has of evaluation. Dr. C. H. McCloy, in our opinion the most brilliant man to grace our profession, stressed an approach to measurement based on scientific fact. He also left us philosophical heritage which incorporated the function of service to mankind. We believe that Physical and Health Educators should follow Dr. McCloy's leadership. And many of our professional Cana-

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This issue was produced under the editorial direction of Mr. Life.

dian Physical Educators are doing so. Dr. Max. Howell at the University of British Columbia is at present involved with compiling data which should establish national standards for a number of tests. The excellent work done by John Faulkner and Mike Yuhasz in devising the Western Motor Ability Tests for College Men, and their work with the elementary school children in the City of London are valuable contributions to the field of measurement. These men are leading us toward the achievement of our goals. But until such time as research can provide an unquestionably valid and reliable short form of evaluating physical fitness, we should concentrate on providing programs which will have a positive influence on the total health of Canadians.

Let us ensure that every child or adult who comes under our guidance is organically capable of undertaking our activities by establishing medical examinations as a basic principle. Let us take a long, hard look at our programs and satisfy ourselves that we are providing activities which will achieve our total fitness goals. Let us put aside fitness testing and get on with the job of promoting healthful living.

MUSCLING IN

I know a man who always rises
quite early and does exercises.

While others sleep, or lie and rest,
he leaps from bed and beats his chest.

He first inhales and then he "exes",
he thrusts out arms and finger-flexes.

With hands on hips correctly placed,
he bends at knees and bends at waist.

He does ten push-ups from the floor,
and chins himself above the door.

He twists his torso left and right,
he shadow-boxes quite a fight.

He stands on tiptoe, rolls his head,
—then—all worn out—
climbs back in bed!

(Richard Armour)

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What About Fitness
— Are We Doing The Job?

By N. R. SPEIRS

Director of Physical Education, Toronto Board of Education

The children now love luxury, they have bad manners, contempt for authority. They show disrespect for elders, and love to chatter instead of exercising.

If you think this is a modern lament about the fitness of our youth you are 2400 years out of date. It was written by Socrates. Every generation complains of the softness it has produced in its offspring—and extols the Spartan rigours of its own upbringing.

Yet every generation seems to measure up to the challenge it has to meet. The young people who pulled us through the last war were castigated by their elders as a frivolous lot of "softies", but look how those delinquent kids came through when the chips were down. Are we sure of our perspective when we call present-day kids "soft"?

All that the Kraus-Weber tests seem to have proved is that European children mature faster—which we already knew. It is easy to be a surly prophet and paint a gloomy picture to arouse people to the needs of our profession, but is it a true picture? I find it hard to believe.

I go to a high-school track-meet and see times hung up that would have sent a kid to the Olympics in my high-school days. I go to a summer camp and see youngsters racing over portages with canoes and packs on their backs—loads that none of us could handle when I was a boy. I learn that boys are 31 pounds heavier and 6 inches taller than they were 25 years ago—and 2 years advanced in maturation.

Skill that made you a "ten-day wonder" when I went to school are commonplace today. Only the handful of us that went to the "Y" knew how to swim when I attended Riverdale Collegiate. Today in the City of Toronto 94 per cent of the boys and 86 per cent of the girls know how to swim by the time they reach grade 9.

Today I find boys willingly undergoing the discipline of army cadet work, cross-country running and strenuous football training. When I compare the intensity of modern youth with the light-hearted way that my contemporaries regarded these matters, I know which are the "softies". Perhaps my experience has been peculiar, but I find nothing here for dismay, and I don't think I am any self-deluding Polyanna.

What kind of fitness do we covet? You may have gathered that I don't think much of a program that is built around muscle-building **per se**. On the other hand, I would not want you to think that I am against all forms of conditioning.

Whenever I become confused about objectives, I find it helps to think in terms of my own boy. What do I want for him? I certainly covet for him the experience of going into strict athletic training. I think it is good for him physically, and the discipline of submerging his likes and dislikes is good for him too. But I don't rate these things in number one position.

The chief thing I want him to get out of his physical education program is the creation of an appetite. I want him to develop a zest for sports and the sporting life. And I want him to encounter a teacher with a burning zeal for the sportsman's code, which someone described as "obedience to the unenforceable". I want him to learn about life the best and shortest way—through hero-worship of a worthy teacher.

(Continued on page 40)

A Study in Vital Statistics

— The Ideal Athlete —

1903 versus 1959

It has become the fashion recently to deplore the physique of modern youth and make unfavourable comparisons with their predecessors.

Unfortunately we have very little really scientific information about our immediate ancestors and the comparisons are, therefore, with phantoms of our imagination.

One exception is provided in Hussey's biography of the late Dr. Tait McKenzie entitled "As Sculptor of Youth". It is contained in the chapter which tells how Tait McKenzie was commissioned by the Physical Educators' Association of America to create a statuette that would symbolize the ideal college athlete. He was to use anthropometric measurements supplied by the association.

To obtain these measurements the committee first selected 400 all-round athletes judged to be the finest physical specimens in American Colleges. All but the strongest fifty were eliminated by means of a series of dynomoter tests. The vital statistics of these fifty men were then averaged and Tait McKenzie was required to observe these proportions in the creation of the "Ideal Athlete". This statuette, quite apart from its aesthetic qualities, may be said to represent the physical ideal of the 1903 college man—derived by scientific methods.

If, as our detractors declare, modern youth is suffering from sedentary living, some declension from the ideal of 1903 should be evident in our college athletes. However, when we study the physique of this ideal athlete I think you will agree that by present-day standards it is not remarkable—quite otherwise.

In sober fact, the ideal athlete of 1903 was no match for today's giants. His chances of making a modern football team would be pretty slim, for he weighed only 159 pounds. Last year Dalt White's Senior University of Toronto football team averaged 192 pounds (only one man in the whole

(Continued on page 41)

"THE IDEAL ATHLETE" (1903)

—By Dr. R. Tait McKenzie —

	Height	Weight
1903 —	5 ft. 9 in.	159 lbs.
*1959 —	6 ft. 1 in.	192 lbs.

*Estimate only

(Continued from page 38)

Given these conditions, I believe that fitness will take care of itself.

I am reminded that the law of muscular overload is reversible—that every muscle reverts to type as soon as the overload is removed. In the long run we get the kind of muscles we need for the kind of life we are called upon to lead. You can't store up muscle. The only permanent dividend is in the nervous system. The co-ordinations we learn are learned for life.

I am not too much concerned either about the so-called "carry-over values" for my son. If he has had the right kind of experience in school with traditional school games, he will carry over into adult life a zest for sports and enough co-ordination to pick up adult game skills.

I would prefer to have my son's leader transfer his enthusiasm for a limited number of good activities than risk a dilettante sampling of such things as horseshoes, fly-casting, ballet dancing, roller skating, skin-diving, lawn bowling or skeet shooting. And, mind you, there is nothing wrong with any of these things, but no coach can feel secure in covering so much territory. Without such security, he can't transfer much skill or enthusiasm to my son.

You see why I agree with Dr. J. F. Williams when he tells us that we should "forsake the cult of muscle as a blind alley, without social or even biological significance". It is a short-term proposition. There is no future in it for the boy, and therefore, there is no future in it for the teacher.

In our most recent courses of study in Toronto, Ontario, we allot 10 per cent of the lesson time for warming-up or conditioning activities. For my money, 10 per cent is about the right proportion of the program to give to formal muscle-training.

In this connection, the Bookwalters pose a pertinent question in their new book **Fitness for Secondary School Youth.** "If I fail a test and thus am unfit today, then I practise for a week and pass the test, am I really fit then?"

How are we doing in training for muscular fitness? Frankly, I don't know, nor do I think anyone else does. We are in the position of trying to measure complex factors with over-simplified tools. I, for one, couldn't care less.

If we are really serious about fitness, we should concentrate our energies upon health topics, which offer lively promise of success —and forget about a muscle-building program.

The kind of fitness that we know most about, that is really fundamental and can be measured objectively is health fitness—not physical fitness.

This is the area of fitness that merits our next great concentration of effort.

* * * *

"Were fitness only a physical factor concerned solely with the calisthenic habits of humans — a measuring rod showing the numbers of exercises in school and community programmes would be easy to design."

(S. MacCarthy)

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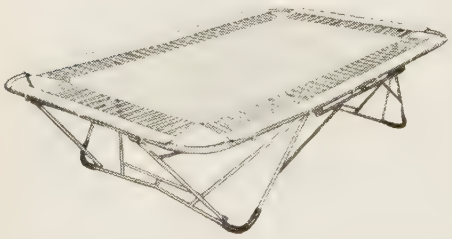

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PLAN FOR THE REPRESENTATIVE COUNCIL MEETING

June 21st, 1960

The Ontario Athletes Leadership Training Camp, Longford Mills, Ontario

Committee Reports are to be presented by the Chairman of the following committees: Finance, Publication, Membership, Affiliation, and University.

The Vice-Presidents for Health Physical Education and Recreation will report on the activities of their divisions.

All branches are urged to select their representatives or proxy in accordance with the by-laws. The number of voting representatives from each branch will be based on the number of paid up national members in each branch on April 1st, 1960.

Notice of Motion

All notices of motions must be submitted through the Executive Secretary, Room 311, 206 Huron Street, Toronto 5, Ontario, on or before May 14, 1960. Notice of Motions will be circulated to branches for consideration.

Board of Directors

The Board of Directors will meet on June 20th to prepare for the Representative Council Meeting.

THE IDEAL ATHLETE

(Continued from page 39)

team of 33 players weighed as little as the 1903 ideal. The heaviest weighed 220 pounds —not an extraordinary weight for today).

The 1903 boy would also be lost in the modern game of basketball. He stood only 5 ft. 9 in. (there was no need to consider raising the baskets in those days). John McManus' University of Toronto Seniors averaged 6 ft. 1 in. (two of them were 6 ft. 5 in.—one of these stretched another inch during the season)—and there was only one "shorty" in the 1903 wheelbase— 5 ft. 9 in.

I have no figures to use for comparing foot sizes, but that is a familiar story. We all know what has happened down there.

McKenzie was proud of the athletes of his day. How he would beam today!

(Submitted by N. R. Spiers)

Canada's Greatest All-Round Athlete?

George Stulac—who appears on our cover page—exemplifies physical fitness.

Stulac is probably Canada's greatest all-round athlete in active competition.

Among his many athletic achievements are the following:

- Third place in the decathlon in the 1959 Pan-American Games.
- Member of the Canadian Olympic basketball team in 1956.
- An alternate on the 1952 Olympic swimming team.
- As an undergraduate at the University of Toronto, a member of the senior football, basketball and swimming teams.

In addition George is an accomplished gymnast and a devotee of weight training. He has a B.A. and a B.P.H.E. degree from the University of Toronto—and is presently a member of the teaching staff at Richview Collegiate, Etobicoke, Ontario.

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PLAYING FOR SAFETY

By TOM W. COTIE
Director of Physical, Health and Safety Education
Oshawa, Ontario

PART 2

INDOOR ACTIVITIES

Certain phases, e.g., gymnastics, small team games, dancing, swimming and house-league and inter-school competitions are normally taken in the gymnasium, and, unless indicated, the safety measures described in the following apply to them jointly.

The accommodation should be suitable in size and design for the activities and the number of students under instruction. It ought to be possible to show free, active movement without the danger of the students colliding with one another or with the walls or apparatus or other obstacles. Radiators should be recessed and there should be no uncovered or unprotected obstacles jutting out from the walls or from the ceiling. There should be a gymnasium store-room, where the box-horse, spring-boards and other portable apparatus should be stored; apparatus of this kind should not be secured on supports on the wall of the gymnasium itself. Special care is needed to guard against risk of injury from the presence of furniture, ornaments and other objects. The floor of the gymnasium should be durable, elastic and resilient and should not be liable to become slippery or to splinter, etc.

Fixed and portable apparatus should be inspected at least once a year by a representative of the manufacturers; and by yourself, before each class. It is not satisfactory to leave this examination to local tradesmen, however competent they might be in their own sphere, as they are unlikely to have the specialized knowledge to appreciate the stresses and strains to which gymnastic apparatus is subjected.

The students should receive careful instruction in the handling of apparatus so as to prevent damage to themselves, the apparatus and the floor. They should also be trained to use their intelligence and powers of observation, and to act promptly on their own initiative where a slight adjustment of the apparatus or a part of it may make all the difference between a safe and an unsafe situation; to note, for example, whether the ropes or travelling rings are securely bolted in position, or whether the telescopic legs of vaulting appliances are firmly fixed in the correct notches, e.g., parallel bars, horizontal bar.

Before a piece of apparatus is used, the teacher should be satisfied that it is safely set for the purpose. For example, vaulting appliances should be firm and stable; mats should be set for landings, whenever the height from which the pupil lands, or the speed with which he lands, calls for their use. All apparatus should be securely supported on their pins, etc.

Great care is needed in the choice and use of improvised apparatus. When such apparatus (ropes, bars, etc.) is fixed to the walls or other supports, the teacher must make sure that it is safely attached and stable. No portable improvised apparatus which has a projecting limb (a chair, for example) should be used as an obstacle for jumps and vaults.

The use of gymnastic kit and suitably soled shoes and boots is an essential safety measure. In certain circumstances, however, as when the floor is suitable, it may be safe and desirable for gymnastics and dancing to be taken in bare feet. In competitive sports, gymnastic gear and apparatus should be suitable; students should be matched for weight, age and skill; length of periods and playing time for the contest in question should not be too long. Competition for junior aged types should be altered to suit these adolescents. Senior competition is another thing and rules and regulations must be made which are divorced from college and professional sports. Suitable modifications are essential and a must for safety.

Certain types of gymnastic exercises, notably the more advanced vaulting and agility groups, call for a particular safety

precaution—the "Safety Man" or "Standing-by". The teacher must stand by the apparatus to assist, receive or save the performer if need be. He may use instead, or be helped by, one or more competent leaders. In "assisting", definite help is given to the performer to enable him to clear the apparatus safely. In "receiving", help is given during the landing. For "saving", the teacher or leader must be in position to catch a student who has slipped, overbalanced or stumbled.

The proper methods of "Standing-by" or being a "Safety Man" should be taught to the students as part of their training. Once correct practice has been mastered by the pupils, the teacher should enforce it strictly. Then, if his course of training is carefully graded and his instruction skilful, he will have gone a long way towards eliminating the risk of personal injury.

The main principles to observe in being a "Safety Man" are:

a. The helper should be sufficiently close to the apparatus and so poised that he can instantaneously sway forward to catch the performer, should there be a check in the vault; or step back, in order not to hinder the completion of a good vault, and yet be able to check a trip or loss of balance in the landing.

b. The head of the performer is the part to be saved from contact with the floor or apparatus. Therefore, if help has to be given, the helper should catch the shoulder or arms but never the lower limbs.

c. If the vault is one that entails a grip on the bench or pommels, the helper should be ready to catch the upper arm of the performer.

In the early trials of a vault, it may be necessary to maintain a supporting hold on the performer during part or the whole of the flight and throughout the landing. But the hold should never be so strong as to interfere with the freedom of the flight or to lessen the confidence of the performer by preventing him from learning to control his own weight. Help of this kind, therefore, should be used sparingly and as a rule should be given only by the teacher. It may, however, be usefully employed in the early practices of certain agility exercises, as, for example, in the backward roll, the backward roll to hand standing, head and hand springs.

These are general principles merely. It is not practicable to describe here the correct method of "Standing-by" for each of the large number of vaults and agilities which should be included in the school gymnastic program. The teacher should not include any such exercise if he is not competely familiar with an effective method of "Standing-by" for it.

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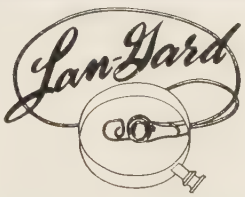

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In recent years, the physical education of elementary school-aged pupils has been widened in scope to include a variety of exercises on portable and improvised apparatus. These involve climbing, balancing, hanging, scrambling and crawling, as well as a large number of simple jumps and agilities. Many of these exercises are a development of movements previously learned in the "Jungle Gym" type of apparatus; they are devised by the pupils themselves and carried out by them freely and independently under general supervision and encouragement by the teacher. The pupils perform the movements quite fearlessly and without help or support, for at this stage of their training, they only attempt those things which interest them and which they feel themselves capable of doing unaided. Obviously, the teacher must do everything possible to ensure the safety of the conditions under which the pupils work, but nothing should be said or done to suggest to them that they ought not to be attempting any chosen activity or that there is an element of risk in it. There must be complete confidence in the natural competence of the pupils to do successfully what they choose to do in the environment in which they are placed. Otherwise, they may become timid and inhibited and will fail to make progress.

A distinction should therefore be drawn between precautions necessary with classes which carry out directed jumps and vaults, especially the more advanced types, calling for careful "Safety Men", and the precautions proper to young pupils during their free, informal work on suitable apparatus.

OUTDOOR ACTIVITIES

Competitive games offer a challenge to the physical prowess and daring of students. It is therefore important that any measures taken to prevent accident in games should not have the effect of curbing the speed, dash and determination of the players. Nevertheless, there are certain general principles and practical "Tips" which apply to outdoor games and sports.

Many existing playgrounds have defects that ask for trouble. They may be too small or awkwardly shaped. Surfaces may be rough and stony or slippery or irregular. There may be excessive slope or sudden variation in slope. Where such faults cannot be immediately remedied, there is need for extra care both in the conduct of organized games and in supervision of free play.

Playing fields should be efficiently maintained. Surface conditions need particular attention; there is always risk of injury it games, and especially the team games, are played on bumpy and uneven fields. If boundary lines are trenched, the trenches should be filled with sand or with the sod reversed. Sleeves for goal-posts should not project above ground level. On football and soccer fields, posts and flags marking the centre and other lines should be kept well back from the side and end lines to prevent the players colliding with them. In fact, the goal posts for football activities should be padded.

The apparatus and equipment used (bats, balls, racquets, etc.) should be suited in size and weight to the age and strength of the players, and they should be kept in good repair. The use of the right sort of boot, shoe, pad, uniform for the game will help to avoid risk of injury.

Football, hockey, basketball, baseball and lacrosse, etc., should not be introduced as set games until the children are old enough. They should be of an age, that is, to understand the value of co-operative effort and so to take part successfully in team play. Even the size of the court, field and length of time played should be suited to the age, strength and skill of the players. To set beginners and other young players to play on full-sized courts, fields, etc., is to invite the risk of accumulated strain. Whatever the game, familiarity with the rules will help to prevent accidents.

In athletics (track and field), too, immediate or delayed strain must be avoided. A graduated scheme of training should be followed, so that skill and stamina are built up bit by bit to meet the increasing demands of the course as they arise. The events in which a pupil may compete should be carefully selected, with particular attention to the length of sprints and the distance of other races and relays. The number of events for which any one pupil may enter in a school sports program should be strictly controlled.

The safe practice of the field events requires certain conditions. Suitable take-off

areas and landings pits for the jumps must be provided. Injuries have been caused by misuse of apparatus such as javelins, shots and hurdles, etc. There must therefore be ample space and competent organization of the training practices, which would rule out, for example, any risk of a javelin being thrown among a group engaged on some other event. In addition, there must be good discipline and good supervision by the teacher and group leaders.

The provision of proper facilities for changing and washing can quite fairly be classed as a kind of safety precaution. If the pupils are suitably clad for exercise and take a shower bath afterwards, there is far less risk of their catching a cold or a chill.

SWIMMING ACTIVITIES

The teacher must always be in the best position to see the class as a whole. He should therefore teach from the side of the pool and not enter the water. He must be quite firmly in control of his class, who must strictly observe "the rules of the whistle". For example, one blast — everybody still and quiet; two blasts — everybody out of the water and line up on the pool-side. His control should also be exercised to make sure the pupils dry thoroughly and dress quickly after showering to avoid chills and horse-play.

Life-saving apparatus should be readily available. One useful piece of apparatus is a long bamboo pole, 12 feet long and 2 inches in diameter. If a pupil is in difficulties, one end of the pole is placed in the water in such a position that the pupil may easily grasp it. If this measure is adopted, one or more poles should be kept in every swimming pool. Ropes or buoy lines (floats) may be used instead. For lake and river swimming, special precautions are required to suit the varying conditions of depth, current and so on. Patrol boats may be necessary for such swimming.

First, and most important in this phase of physical education, the teacher must be most qualified to handle any class in swimming and related activities. He must be an expert swimmer and diver; know and understand the proper techniques of Life-Saving and Water-Safety and First Aid, and ready to administer the required and approved methods when so called on to do, in an emergency, etc.

In summary, all physical activities of physical education, sports and games should be made as safe as possible. Those who participate should take every precaution to prevent injury to themselves and to others. Equipment, rules, and regulations of games and sports in the modern day are designed to protect players so far as possible. Finally, all students should give attention to safety, for it is generally recognized that a high percentage of the deaths and injuries due to accidents could be prevented.

* * * *

In our contacts and work with young people, it is my conviction that we must recognize and utilize their natural incentives and drives. We must encourage in them a sense of responsibility for their own welfare, a spirit of adventure and personal initiative, curiosity, and zest for the pursuit of knowledge."

(M. Allen)

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**Write the Director,
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and Extension Department,
University of Western Ontario,
London, Ontario**

TRANS-CANADA GRAPEVINE

By C. R. BLACKSTOCK

Executive Secretary

The Amateur Synchronized Swimming Association of Canada has published a manual entitled "Manual of Canadian Synchronized Swimming" dated January 1960. This is a mimeographed publication and contains the constitution, general laws, championships for Dominion and Provincial Associations or Organizations, duties of officials, score sheets and entry forms. The latter part of the manual is devoted to the figures and strokes involved in synchronized swimming.

You may obtain this manual from the University of British Columbia, School of Physical Education, by addressing your requests to Lorne E. Brown, Associate Professor.

* * * *

We have recently had a visit from Major Leys, the owner of the Mill of Kintail, who reports that additions have been made to the collection of replicas of R. Tait McKenzie's work now housed at the Mill. These replicas are of the work that McKenzie did on athletes while he was at the University of Pennsylvania. Anyone who is in the neighborhood of Ottawa should make a point of visiting the Mill. Major and Mrs. Leys will be glad to welcome you, providing you let them know ahead of time, that you would like to visit the Mill and with them.

* * * *

While the Executive Secretary was in the west he had a number of get-togethers with T. E. Cureton, Professor of Physical Education, University of Illinois, who is conducting testing programmes in a number of centres on the Prairies and the West Coast. He has been welcomed wherever he appears and he has stirred people to greater activity both by his presentations and his testing, which has been revealing to many people.

Anyone who visits the University of Saskatchewan Campus at Saskatoon will be interested to see the new curling rink they have there. They proudly claim that this is the only curling rink owned and operated by a University, in the world. It is certainly a very well used facility on the campus. It gets use as an instruction space for intramural league competition and by the faculty. Hundreds of people living on or around the Campus get the use of this excellent rink.

* * * *

The Executive Secretary would like to report to those who attended the June Convention of the Association in Edmonton, that the new Gym and the new Rink have their unbelievably free spanned roofs up, and that they are holding. Dr. VanVliet reported that he expected that they would be in the offices of the new building by the 1st of April and that certainly by this fall, Gym, Pool and Rink would be in use.

* * * *

Everywhere we went towards the setting sun, we found a very considerable "stir" among the physical education people. They are responding to what must be a demand on the part of the public for improved and more rigorous programmes of physical education in the community and in the school. In the Province of Manitoba there has been considerable concern and interest in physical education as a result of the two reports that have recently been presented to the Provincial Government. The first of these, 'The Kennedy Report on Physical Education', was completed in 1958. The second, 'The Royal Commission on Education Report', was submitted the latter part of last year. There was some evidence and some statements to the effect that physical education would not be included in the school curriculum. However, recent statements by the members of the Provincial House would indicate that physical education will not be dropped and that it will continue to be a part of the school programme. There were also indica-

tions that a stepped-up fitness programme would be attempted in the near future.

In the Province of Ontario also, there has been quite a bit of discussion in the Legislature during its present session about fitness. Dr. Dymond is reported in one of the Toronto papers to have said that "the best and most physically fit are developed or arise from a broad based, well rounded programme".

* * * *

Lorne Brown of the University of British Columbia will be staging a Camp Leadership Conference on the campus, April 22, 23 and 24. People in Western Canada interested in camping and outdoor education can get in touch with him regarding this Conference.

* * * *

We have from Kiwanis International, 101 East Erie Street, Chicago 11, Illinois, a letter requesting our Association to keep in touch with them. The Director of Activities, Percy H. Shue, asks that any programmes with special emphasis or observances or civic projects on physical education and recreation be reported, and perhaps they can be included in their publication. Their special concern, to reflect those things which are uniquely Canadian. Our National Office would be glad to forward these on to Kiwanis International if you would be good enough to send them in. Another way you could report these activities would be to the local Kiwanis Club, which I'm sure would be teamed to report them to their International Office.

* * * *

Some dates on the Y.M.C.A. calendar, which you may want to keep before you during the summer, follow:

> The Y.M.C.A. Physical Education Leaders Corps will be on course at Geneva Park, Lake Couchiching, from July 3rd to July 16th.
>
> Anyone going to Europe this summer and interested in the Y.M.C.A. may want to look in on the Conference in or near Amsterdam, August 3rd to August 13th, when the Y.M.C.A. World Youth will be together.

Contact Wes McVicar, at the National Office of the Y.M.C.A., 15 Spadina Road, Toronto.

EDITORIAL COMMENT

By JACK PASSMORE

Chairman of Publications

When this issue was originally conceived, your editorial committee provided broad terms of reference; first, that we should include all aspects of fitness; and secondly, that all authors should adopt a positive — even though controversial, point of view.

We hope that readers of the Journal will agree that we have accomplished this purpose; that the content of this issue has succeeded in giving broader dimensions to our definition of "fitness"—and has directed our thinking toward the many problems implicit in any fitness programme planned at a federal, provincial or municipal level.

During recent years a welter of conflicting opinions and interpretations of fitness have appeared in print. It has been extremely difficult at times to distinguish between fact and fiction, personal prejudice, and vested interest.

It is our firm conviction that this issue will prove extremely useful in helping us to emerge from this state of confusion. Surely, as we read and ponder what has been written, we are left with several inescapable conclusions.

That:

. . . an extremely broad definition of fitness is now generally accepted by most authorities.

. . . the fitness of a nation reflects its economic, cultural, spiritual and physical health.

. . . Canadians would be healthier and happier if they got more regular exercise.

. . . there is an enormous amount of public interest in the problem.

. . . all organizations concerned are anxious to work together.

. . . the stage is now set for the Canadian Association of Health, Physical Education, and Recreation to plan the parade—set the pace—and determine the direction, so that in the foreseeable future we will have that "clear song to march to".

BOOK REVIEWS

Title:
Discovering Dance

Author:
Rachel Percival

Publisher:
University of London Press (Clarke Irwin & Co. Ltd.) 1959 $1.35

Written in a manner to appeal to the young dancer, this book of only 135 pages covers the history of the dance from primitive times to the present in a brief but instructive and very interesting manner. One gets a total picture of dance including descriptions of steps and dances of all periods, short bibliographies of dancers, choreographers and dance writers, as well as dance companies, and lists and descriptions of music, musical instruments and composers of each period. At the end of the book is a list of films to see and books to read. As a background and a stimulus to further study for the young dancer this book is excellent. For the teacher it could be read quickly as an interesting and comprehensive review of the dance.

Jean M. Forster,
University of Toronto.

* * *

READING REFERENCES

Be sure to re-read several excellent articles previously published in the Journal by two of North America's best known and most highly respected authorities.

Vol. 25, No. 3, Page 12—
"Some Larger Aspects of Fitness" — Dr. A. H. Steinhaus.

Vol. 25, No. 4, P. 16—
"Fitness — A Way of Life" — (Part 1) — By Dr. C. H. McCloy

Vol. 25, No. 5, P. 38—
"Fitness — A Way of Life" — (Part 2) — By Dr. C. H. McCloy

Title:
Archery from A - Z

Author:
Howard Wiseman and Fred Brundle

Publisher:
Faber & Faber, 24 Russell Square, London, 1958 - 127 pages. (British Book Service, Canada) $4.25

Here is a recent comprehensive, well illustrated book of archery, which literally does take the reader from A to Z, the most notable feature of it being its organization into twenty-six alphabetical chapters. Chapter one, or rather, chapter A deals with aim, anchor, arm guards; chapter B with badges, books, bows and so on, right through to Chapter Z. This type of organization has, of course, its advantages and disadvantages. Material is easy to find if you know the exact term you seek, but the information does not follow a logical sequence. For example, the aim comes before the anchor, both of these before the grip and the technique of shooting is not unveiled until chapter "T". On this basis, I would recommend the book as a supplement to a library for reference material rather than a guide for the beginning archer. As such, there is good material on the history of archery, bow and arrow making, British competitions, prizes and societies, as well as the author's own particular technique and system for producing high caliber archery in a group.

Gwen A. Vernon,
University of Toronto.

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